

156330 L  
**SEARCH REQUEST FORM**Requestor's  
Name:

Cybille Delacroix

Serial  
Number:

09 / 676,034

Date:

7/1/04

Phone:

272-0572

Art Unit:

1614

**Search Topic:**

Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

Please search claims 1 and 24.

The specific cancers are found  
in claims 14-20.

BIB sheet is also attached.

Rich Sent / Approved

TK file  
SKE 11/16/15

Thanks UM

Please rush!

Thank

**STAFF USE ONLY**

Date completed:

7/1/04

Searcher:

Arnold

Terminal time:

125

Elapsed time:

CPU time:

Total time:

116'

Number of Searches:

Number of Databases:

**Search Site**

STIC

CM-1

Pre-S

**Type of Search**

N.A. Sequence

A.A. Sequence

Structure

Bibliographic

**Vendors**

IG Suite

STN

Dialog

APS

Geninfo

SDC

DARC/Questel

Other



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 126320

TO: Cybille Delacroix

Location: REM/4C70

Art Unit: 1614

Friday, July 02, 2004

Case Serial Number: 09/676034

From: Deirdre Arnold

Location: Biotech-Chem Library

REM 1A64

Phone: 571-272-2532

Deirdre.Arnold@uspto.gov

### Search Notes

**RUSH**

Thank you for using STIC services.



# STIC SEARCH RESULTS FEEDBACK FORM

## Biotech-Chem Library

Questions about the scope or the results of the search? Contact *the searcher or contact*

Mary Hale, Information Branch Supervisor  
571-272-2507 Remsen E01 D86

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 1610

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/Biotech-Chem Library Remsen Bldg



=> fil lreg

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STRUCTURE FILE UPDATES: 30 JUN 2004 HIGHEST RN 701907-96-2  
DICTIONARY FILE UPDATES: 30 JUN 2004 HIGHEST RN 701907-96-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

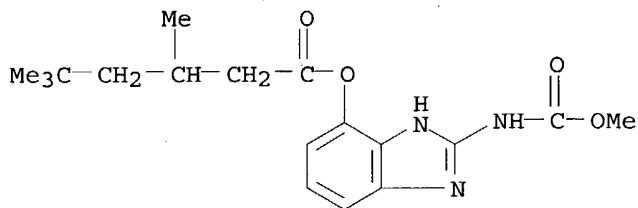
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d ide l23 1-

YOU HAVE REQUESTED DATA FROM 10 ANSWERS - CONTINUE? Y/(N):y

L23 ANSWER 1 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 443685-81-2 REGISTRY  
CN Hexanoic acid, 3,5,5-trimethyl-, 2-[(methoxycarbonyl)amino]-1H-  
benzimidazol-4-yl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C18 H25 N3 O4  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL  
DT.CA CAplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES  
(Uses)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L23 ANSWER 2 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 436809-90-4 REGISTRY

CN Benzoic acid, 3,4,5-trimethoxy-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

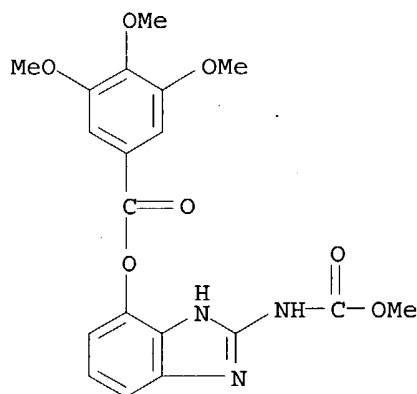
MF C19 H19 N3 O7

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); PRP (Properties); USES (Uses)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

6 REFERENCES IN FILE CA (1907 TO DATE)

6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L23 ANSWER 3 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 233263-10-0 REGISTRY

CN Carbamic acid, [4-[[2-methoxy-4-[(2,3,4,5-tetrahydro-1H-1-benzazepin-1-yl)carbonyl]benzoyl]amino]-1H-benzimidazol-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

FS 3D CONCORD

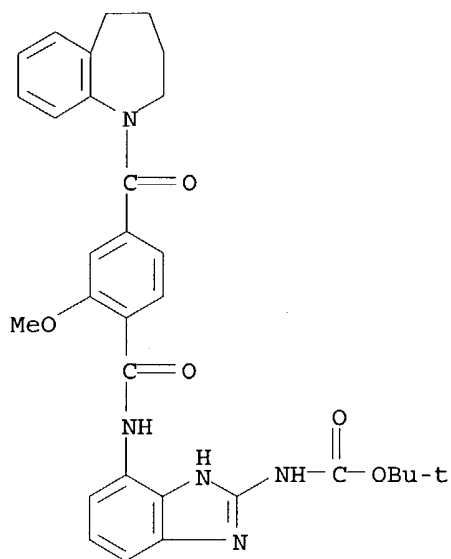
MF C31 H33 N5 O5

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

DT.CA Caplus document type: Patent

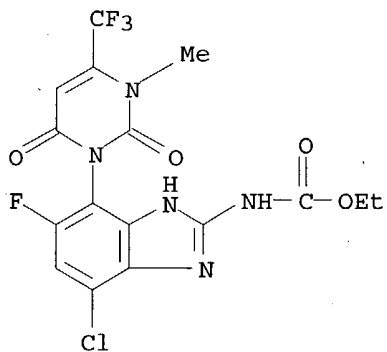
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L23 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 212754-54-6 REGISTRY  
CN Carbamic acid, [7-chloro-4-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-1H-benzimidazol-2-yl]-, ethyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C16 H12 Cl F4 N5 O4  
SR CA  
LC STN Files: CA, CAPLUS, USPATFULL  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



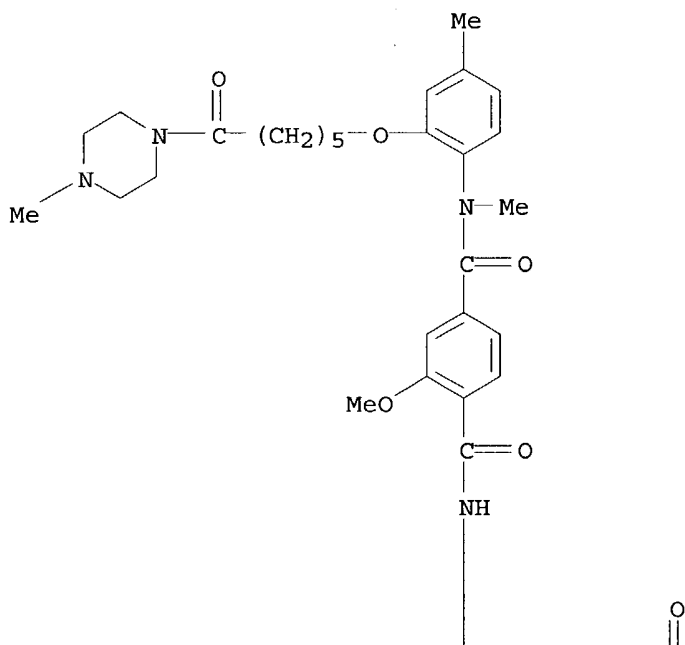
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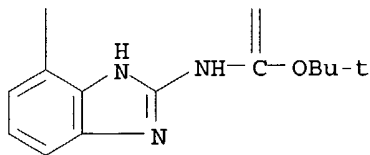
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L23 ANSWER 5 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 208770-65-4 REGISTRY  
CN Carbamic acid, [4-[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]benzoyl]amino]-1H-benzimidazol-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C40 H51 N7 O7  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL /  
DT.CA Caplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

PAGE 1-A



PAGE 2-A



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L23 ANSWER 6 OF 10 REGISTRY/ COPYRIGHT 2004 ACS on STN

RN 208768-81-4 REGISTRY

CN Carbamic acid, [4-[[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]phenyl]amino]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester, dihydrochloride (9CI) (CA INDEX NAME)

MF C37 H45 N7 O7 . 2 Cl H

SR CA

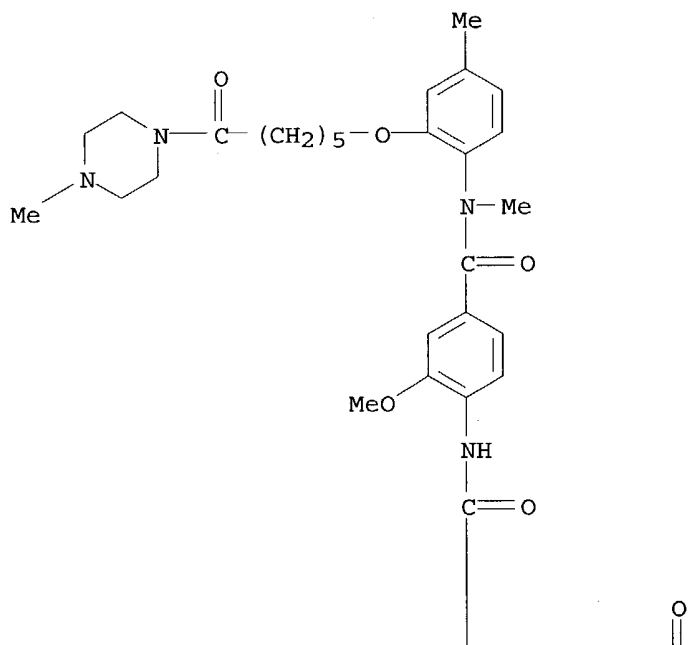
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

DT.CA CAplus document type: Patent

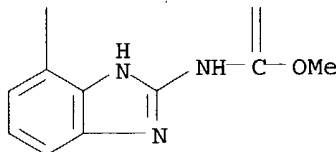
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

CRN (208767-99-1)

PAGE 1-A



PAGE 2-A



● 2 HCl

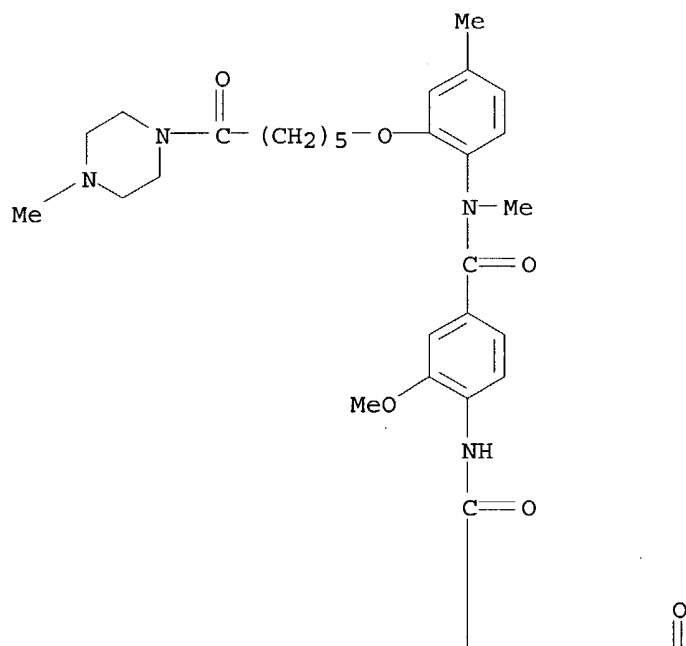


1 REFERENCES IN FILE CA (1907 TO DATE)

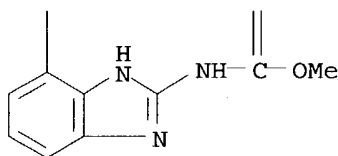
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L23 ANSWER 7 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 208767-99-1 REGISTRY  
CN Carbamic acid, [4-[[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]phenyl]amino]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C37 H45 N7 O7  
CI COM  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL  
DT.CA CAplus document type: Patent  
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

PAGE 1-A



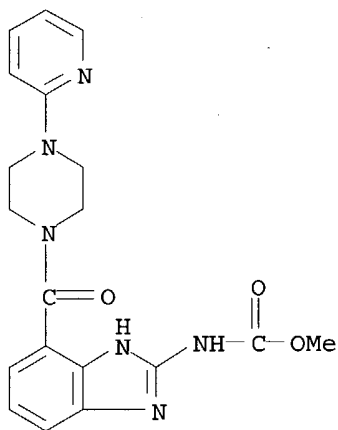
PAGE 2-A



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

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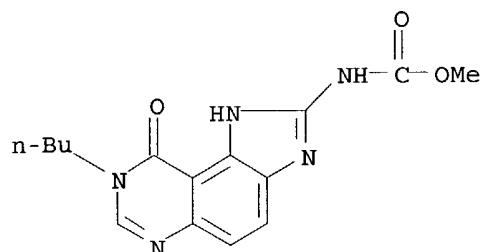
L23 ANSWER 8 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 200499-91-8 REGISTRY  
CN Carbamic acid, [4-[[4-(2-pyridinyl)-1-piperazinyl]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C19 H20 N6 O3  
SR CA  
LC STN Files: CA, CAPLUS  
DT.CA CAplus document type: Journal  
RL.NP Roles from non-patents: BIOL (Biological study); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L23 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 153213-43-5 REGISTRY  
CN Carbamic acid, (8-butyl-8,9-dihydro-9-oxo-1H-imidazo[4,5-f]quinazolin-2-yl)-, methyl ester (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 1H-Imidazo[4,5-f]quinazoline, carbamic acid deriv.  
FS 3D CONCORD  
MF C15 H17 N5 O3  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT  
DT.CA CAplus document type: Journal  
RL.NP Roles from non-patents: BIOL (Biological study); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L23 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2004 ACS on STN

RN 81946-27-2 REGISTRY

CN Carbamic acid, (8-butyl-8,9-dihydro-9-oxo-1H-imidazo[4,5-f]quinazolin-2-yl)-, ethyl ester (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1H-Imidazo[4,5-f]quinazoline, carbamic acid deriv.

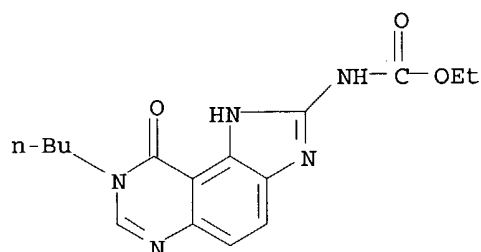
FS 3D CONCORD

MF C16 H19 N5 O3

LC STN Files: BEILSTEIN\*, CA, CAPLUS, CASREACT/  
(\*File contains numerically searchable property data)

DT.CA Caplus document type: Journal

RL.NP Roles from non-patents: BIOL (Biological study); PREP (Preparation)



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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> FIL STNGUIDE

=>

=> fil lreg

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STRUCTURE FILE UPDATES: 30 JUN 2004 HIGHEST RN 701907-96-2  
DICTIONARY FILE UPDATES: 30 JUN 2004 HIGHEST RN 701907-96-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
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=> fil hcaplus

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FILE COVERS 1907 - 2 Jul 2004 VOL 141 ISS 2  
FILE LAST UPDATED: 1 Jul 2004 (20040701/ED)

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=> fil uspatfull

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FILE COVERS 1971 TO PATENT PUBLICATION DATE: 1 Jul 2004 (20040701/PD)  
FILE LAST UPDATED: 1 Jul 2004 (20040701/ED)  
HIGHEST GRANTED PATENT NUMBER: US6757913  
HIGHEST APPLICATION PUBLICATION NUMBER: US2004128728  
CA INDEXING IS CURRENT THROUGH 1 Jul 2004 (20040701/UPCA)  
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 1 Jul 2004 (20040701/PD)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2004  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2004

>>> USPAT2 is now available. USPATFULL contains full text of the <<<  
>>> original, i.e., the earliest published granted patents or <<<  
>>> applications. USPAT2 contains full text of the latest US <<<  
>>> publications, starting in 2001, for the inventions covered in <<<  
>>> USPATFULL. A USPATFULL record contains not only the original <<<  
>>> published document but also a list of any subsequent <<<  
>>> publications. The publication number, patent kind code, and <<<  
>>> publication date for all the US publications for an invention <<<  
>>> are displayed in the PI (Patent Information) field of USPATFULL <<<  
>>> records and may be searched in standard search fields, e.g., /PN, <<<  
>>> /PK, etc. <<<

>>> USPATFULL and USPAT2 can be accessed and searched together <<<  
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<  
>>> enter this cluster. <<<  
>>> <<<  
>>> Use USPATALL when searching terms such as patent assignees, <<<  
>>> classifications, or claims, that may potentially change from <<<  
>>> the earliest to the latest publication. <<<

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

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FILE COVERS 1907 TO 29 Jun 2004 (20040629/ED)

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identification.

TOXCENTER has been enhanced with new files segments and search fields.  
See HELP CONTENT for more information.

TOXCENTER thesauri in the /CN, /CT, and /MN fields incorporate the  
MeSH 2004 vocabulary. See <http://www.nlm.nih.gov/mesh/> and  
[http://www.nlm.nih.gov/pubs/techbull/nd03/nd03\\_mesh.html](http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html) for a  
description of changes.

=> FIL STNGUIDE

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

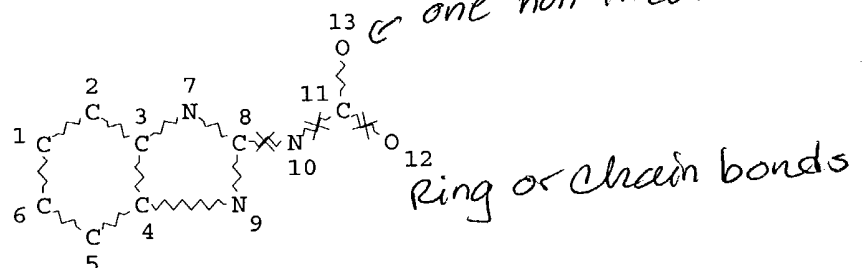
FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Jun 25, 2004 (20040625/UP).

=> d que 130

L12

STR



NODE ATTRIBUTES:

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 CONNECT IS E1 RC AT 13  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

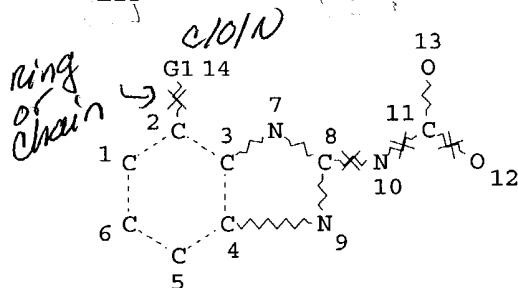
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STEREO ATTRIBUTES: NONE

L14 4407 SEA FILE=REGISTRY SSS FUL L12  
 L15 STR

Parent set



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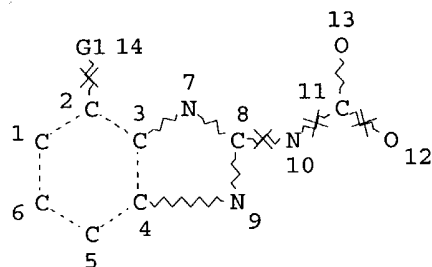
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 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE

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G1

G1

N-X-C-X-O  
@21 22 23

G1

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NSPEC	IS	RC	AT	21
NSPEC	IS	RC	AT	22
NSPEC	IS	RC	AT	23

*ring or chain nodes*CONNECT IS E1 RC AT 13  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

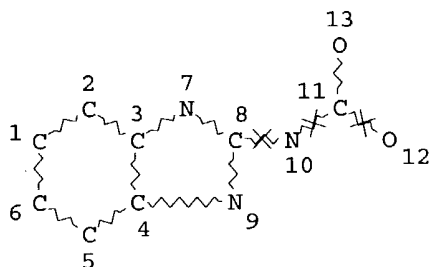
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NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L23 10 SEA FILE=REGISTRY SUB=L17 SSS FUL L20  
L30 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L23

=&gt; d que l31

L12 STR



NODE ATTRIBUTES:

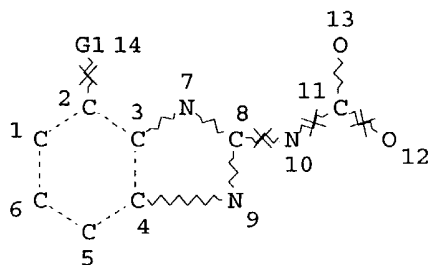
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RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 13

## STEREO ATTRIBUTES: NONE

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 L15 STR



VAR G1=C/O/N

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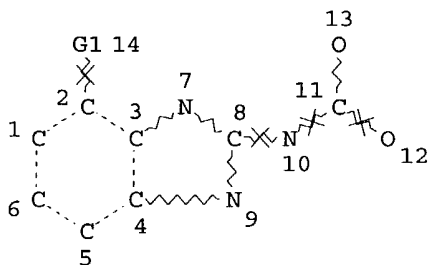
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L17 92 SEA FILE=REGISTRY SUB=L14 SSS FUL L15  
 L20 STR



O~~X~~C~~X~~N  
 15 @16 17

O~~X~~C~~X~~O  
 @18 19 20

N~~X~~C~~X~~O  
 @21 22 23

VAR G1=16/18/21  
 NODE ATTRIBUTES:



NSPEC IS RC AT 10  
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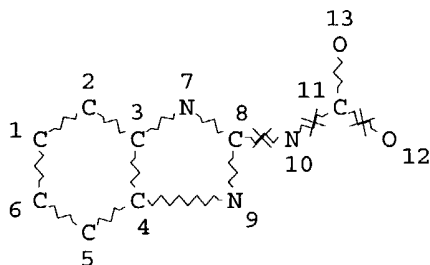
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 NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

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 L28 7 SEA FILE=REGISTRY ABB=ON PLU=ON L23 AND USPATFULL/LC  
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L12 STR



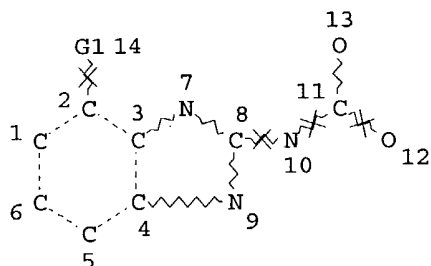
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VAR G1=C/O/N

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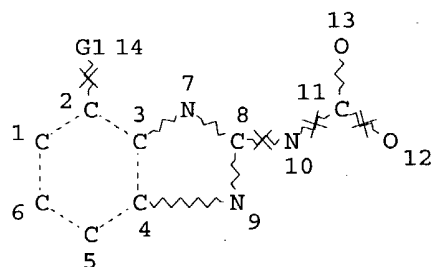
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L20 STR



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 CONNECT IS E1 RC AT 13

DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L23 10 SEA FILE=REGISTRY SUB=L17 SSS FUL L20  
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L32 8 SEA FILE=TOXCENTER ABB=ON PLU=ON L29

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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE 'USPATFULL' ENTERED AT 11:32:40 C  
CA INDEXING COPYRIGHT (C) 2004 AMERICA

FILE 'TOXCENTER' ENTERED AT 11:32:40 C  
COPYRIGHT (C) 2004 ACS  
PROCESSING COMPLETED FOR L30  
PROCESSING COMPLETED FOR L31  
PROCESSING COMPLETED FOR L32  
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ANSWERS '13-17' FROM FILE USPATFULL

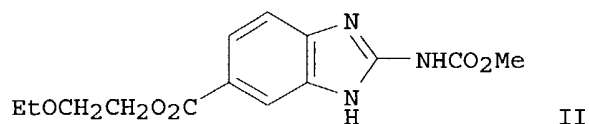
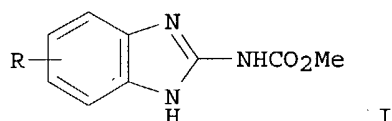
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L33 ANSWER 1 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1  
ACCESSION NUMBER: 2004:240413 HCAPLUS  
DOCUMENT NUMBER: 140:270855  
TITLE: Preparation of benzimidazolecarbamates for treatment  
of cancer  
INVENTOR(S): Camden, James Berger; Agyin, Joseph K.; Quada, James  
C., Jr.  
PATENT ASSIGNEE(S): UAF Technologies and Research, LLC, USA  
SOURCE: U.S., 19 pp., Cont.-in-part of U.S. 6,506,783.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6710065	B1	20040323	US 2000-676031	20000929
US 6506783	B1	20030114	US 1997-857811	19970516
CN 1254282	A	20000524	CN 1997-182190	19971126
US 6077862	A	20000620	US 1999-259969	19990301
AU 763272	B2	20030717	AU 2001-37094	20010418
PRIORITY APPLN. INFO.:			US 1997-857811	A2 19970516
			AU 1998-74027	A3 19971126
OTHER SOURCE(S):		MARPAT 140:270855		
GI				



AB Title compds. [I; R = CO<sub>2</sub>R<sub>1</sub>, CONR<sub>1</sub>R<sub>2</sub>, O<sub>2</sub>CR<sub>1</sub>, NHCOR<sub>1</sub>; R<sub>1</sub> = alkyl, haloalkyl, hydroxyalkyl, alkenyl, haloalkenyl, cycloalkyl, heterocycloalkyl, (substituted) Ph, PhNH, PhCH<sub>2</sub>, alkoxyalkyl, hydroxyalkoxyalkyl, haloalkoxyalkyl, aminoalkyl, etc.; R<sub>2</sub> = H, alkyl], were prepared. Thus, Me 5-chlorocarbonyl-1H-benzimidazole-2-carbamate and 2-(2-ethoxyethoxy)ethanol were stirred together for 16 h at 23° and for 1 h at 40° to give 49.5% title compound (II). II showed IC<sub>50</sub> = 0.084 μM against B16 murine melanoma cells.

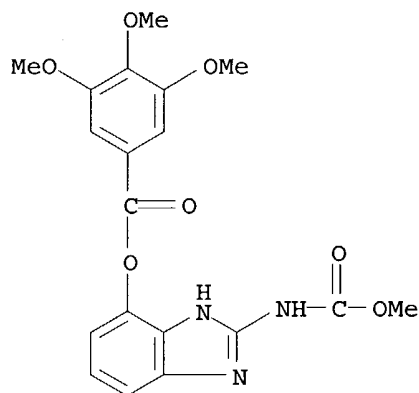
IT 436809-90-4P 443685-81-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of benzimidazolecarbamates for treatment of cancer)

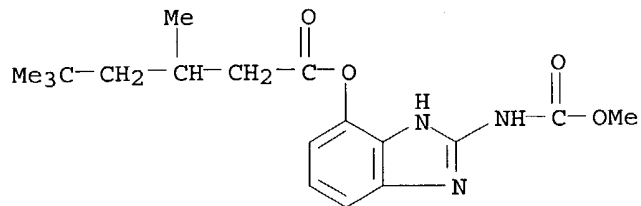
RN 436809-90-4 HCAPLUS

CN Benzoic acid, 3,4,5-trimethoxy-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)



RN 443685-81-2 HCAPLUS

CN Hexanoic acid, 3,5,5-trimethyl-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Adams	1973			US 3738995 A	HCAPLUS
Anderson	1994			US 5329012 A	HCAPLUS
Anon				JP 07277956	HCAPLUS
Anon	1965			BE 667158	HCAPLUS
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Anon	1982				HCAPLUS
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Anon	1994			WO 9404541	HCAPLUS
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Anon	1996		7943	Merck Index, 12t	
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Atassi	1975	11	599	Europ, J Cancer	HCAPLUS
Bissery	1995	22	3	Seminars in Oncology	
Brabender	1976	36	905	Cancer Research	
Brown	1961	83	1764	J Am Chem Soc	HCAPLUS
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Camden	1999			US 5932604 A	HCAPLUS
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Camden	2000			US 6077862 A	HCAPLUS
Carter	1981		362	Chemotherapy of Canc	
Carter, W	1975		277	Selective Inhibitors	
Delatour	1976	31	505	Therapie	HCAPLUS
Dersch	1970			US 3499761 A	
Dupont	1994			Material Safety Data	
Edlind	1995			US 5434163 A	HCAPLUS
Elgebaly	1985				HCAPLUS
Elgebaly	1985	74	811	J Natl Cancer Inst	HCAPLUS
Frensch	1977			US 4046906 A	HCAPLUS
Friedman	1978	544	605	Biochimica et Biophy	HCAPLUS
Georgopapadakov	1994	264	371	Science	
Ghannoum	1990				HCAPLUS
Goodman & Gilman's	1996		1192	The Pharmacological	
Grenda	1965	30	259	J Org Chem	HCAPLUS
Harsanyi	1989			US 4814329 A	HCAPLUS
Heyes	1976			US 3956262 A	HCAPLUS
Higley	1994			US 5290801 A	HCAPLUS
Karjalainen	1992			US 5098923 A	HCAPLUS
Katiyar	1994		607		HCAPLUS
King	1992			US 5114951 A	HCAPLUS
Klopping	1970			US 3541213 A	
Lacey	1985	34	1073	Biochemical Pharma	HCAPLUS
Lacey	1985	34	3603	Biochemical Pharma	HCAPLUS
Lacey	1988	18	885	International Journa	HCAPLUS
Lapras, M	1975	77	379	Bull Soc Sci Vet et	HCAPLUS
Lassnau	1993	104	119	Chest	
Loux	1961			US 3010968 A	HCAPLUS
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Lundy	1976	27	132	Surg Forum	MEDLINE
Lunn	1972			US 3669969 A	HCAPLUS
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Munro	1988			US 4731366 A	HCAPLUS
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Nene	1993			Fungicides in Plant	
Ram	1992	35	539	J Med Chem	HCAPLUS
Regel	1975			US 3881014 A	HCAPLUS
Teicher	1995	36	227	Breast Cancer Resear	HCAPLUS
The American Chemical S				Chemical Abstracts 6	
Thompson, W	1993-	994	154	Agricultural Chemica	
Von Hoff	1995			Private Communicatio	
Wagner	1968			US 3370957 A	
Weisenthal	1992			US 5149527 A	HCAPLUS
Wilde	1994			US 5310748 A	HCAPLUS
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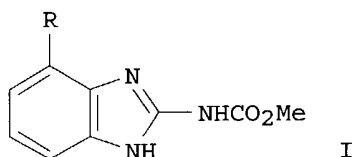
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L33 ANSWER 2 OF 17 HCAPLUS } COPYRIGHT 2004 ACS on STN DUPLICATE 2  
 ACCESSION NUMBER: 2002:889200 HCAPLUS

DOCUMENT NUMBER: 137:370090  
 TITLE: Preparation of benzimidazolecarbamates for treatment of cancer or viral infections  
 INVENTOR(S): Quada, James C., Jr.; Agyin, Joseph K.; Camden, James Berger  
 PATENT ASSIGNEE(S): The Procter & Gamble Company, USA  
 SOURCE: U.S., 20 pp., Cont.-in-part of U.S. Ser. No. 857,811.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6482843	B1	20021119	US 2000-676407	20000929
US 6506783	B1	20030114	US 1997-857811	19970516
CN 1254282	A	20000524	CN 1997-182190	19971126
US 6077862	A	20000620	US 1999-259969	19990301
AU 763272	B2	20030717	AU 2001-37094	20010418
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GI				



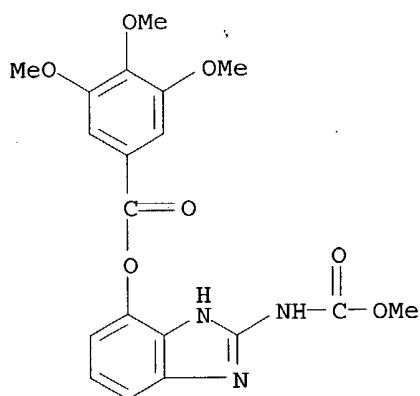
*Applicant*

AB Title compds., e.g. [I; R = O<sub>2</sub>CR<sub>1</sub>; R<sub>1</sub> = alkyl, haloalkenyl, haloalkenyl, cycloalkyl, cycloalkylalkyl, heterocycloalkyl, heterocycloalkyl, (substituted) Ph, PhNH, PhCH<sub>2</sub>, etc.], were prepared Thus, Me 2-amino-5-hydroxybenzimidazole carbamate and 3,5,5-trimethylhexanoyl chloride were stirred in THF at 23-40° to give I (R = O<sub>2</sub>CCH<sub>2</sub>CHMeCH<sub>2</sub>CMe<sub>3</sub>). The latter inhibited human colon carcinoma with IC<sub>50</sub> = 15.8 μM.

IT **436809-90-4P 443685-81-2P**  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of benzimidazolecarbamates for treatment of cancer or viral infections)

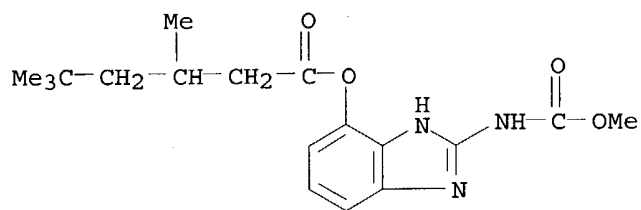
RN 436809-90-4 HCAPLUS

CN Benzoic acid, 3,4,5-trimethoxy-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)



RN 443685-81-2 HCAPLUS

CN Hexanoic acid, 3,5,5-trimethyl-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Actor	1975			US 28403 E	HCAPLUS
Adams	1973			US 3738995 A	HCAPLUS
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Anon	2000			WO 0021504	HCAPLUS



Anon	2000			WO 0050007	HCAPLUS
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Anon	1983		777	Stedman's Medical Di	
Atassi	1975	11	599	Europ, J Cancer	HCAPLUS
Aur	1971	78	129	J Pediatr	MEDLINE
Autant	1995			US 5441742 A	HCAPLUS
Beard	1978			US 4086235 A	HCAPLUS
Berg	1992	13	59	Journal of Photochem	HCAPLUS
Bissery	1995	22	3	Seminars in Oncology	
Brabender	1976	36	905	Cancer Research	
Brown	1961	83	1764	J Am Chem Soc	HCAPLUS
Camden	1997			US 5629341 A	HCAPLUS
Camden	1997			US 5656615 A	HCAPLUS
Camden	1997			US 5665713 A	HCAPLUS
Camden	1997			US 5665751 A	HCAPLUS
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Camden	2000			US 6077862 A	HCAPLUS
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Carter, W	1975		277	Selective Inhibitors	
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Edlind	1995			US 5434163 A	HCAPLUS
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Frensch	1977			US 4046906 A	HCAPLUS
Friedman	1978	544	605	Biochimica et Biophy	HCAPLUS
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Harsanyi	1989			US 4814329 A	HCAPLUS
Heyes	1976			US 3956262 A	HCAPLUS
Higley	1994			US 5290801 A	HCAPLUS
Karjalainen	1992			US 5098923 A	HCAPLUS
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King	1992			US 5114951 A	HCAPLUS
Klopping	1970			US 3541213 A	
Koparkar	1994			US 5284662 A	HCAPLUS
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Lacey	1985	34	3603	Biochemical Pharma	HCAPLUS
Lacey	1988	18	885	International Journa	HCAPLUS
Lapras, M	1975	77	379	Bull Soc Sci Vet et	HCAPLUS
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Lundy	1997				HCAPLUS
Lundy	1978	62	1955	Cancer Treat Rep	MEDLINE

Lundy	1976	27	132	Surg Forum	MEDLINE
Lunn	1972			US 3669969 A	HCAPLUS
Marinovich	1994	94	173	Toxicol	
Menzel	1979				HCAPLUS
Merck & Co	1996		7943	Merck Index, 12t	
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Nene	1993			Fungicides in Plant	
Quada	2000			Ser No 09/670,169	
Quada	2000			Ser No 09/670,170	
Quada	2000			Ser No 09/676,407	
Ram	1992	35	539	J Med Chem	HCAPLUS
Regel	1975			US 3881014 A	HCAPLUS
Seabrook	1996			US 5554373 A	HCAPLUS
Setoi	1998				HCAPLUS
Teicher	1995	36	227	Breast Cancer Resear	HCAPLUS
Thompson, W	1994		154	Agricultural Chemica	
Vergieva	1983				HCAPLUS
Vonn Hoff	1995			Private Communicatio	
Wagner	1968			US 3370957 A	
Weisenthal	1992			US 5149527 A	HCAPLUS
Wilde	1994			US 5310748 A	HCAPLUS
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L33 ANSWER 3 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2002:551611 HCAPLUS

DOCUMENT NUMBER: 137:109276

TITLE: Preparation of methyl 1H-benzimidazole-2-carbamates for treating cancer or viral infections

INVENTOR(S): Camden, J. K.; Quada, James C., Jr.

PATENT ASSIGNEE(S): The Procter & Gamble Co.  
SOURCE: U.S., 1997, 857,811, CODEN: US970857811DOCUMENT TYPE: Patent  
LANGUAGE: English

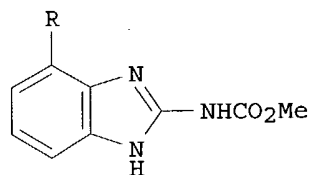
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PATENT INFORMATION:

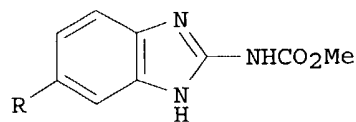
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US 6506783 ✓	B1	20030114	US 1997-857811	19970516
CN 1254282	A	20000524	CN 1997-182190	19971126
US 6077862 ✓	A	20000620	US 1999-259969	19990301
AU 763272	B2	20030717	AU 2001-37094	20010418
PRIORITY APPLN. INFO.:			US 1997-857811	A2 19970516
			AU 1998-74027	A3 19971126

OTHER SOURCE(S): MARPAT 137:109276

GI



I



II

AB The title compds. [I (R = OCORa; Ra = (un)substituted Ph), II (R = CONR1R2, CO2R1, OCOR1, NHCOR1; R1 = alkyl, haloalkyl, cycloalkyl, etc.; R2 = H, alkyl)] were prepared Thus, reacting Me 2-amino-5-hydroxybenzimidazolecarbamate with 3,5,5-trimethylhexanoyl chloride in THF afforded 57% I [R = OCOCH2CHMeCH2CMe3] which showed IC50 of 20.1  $\mu$ M and IC50 of 15.8  $\mu$ M for growth inhibition of B16 murine melanoma cells and H29 human colon cancer cells, resp. Such compds. I may be used in combination with a chemotherapeutic agent and/or a potentiator.

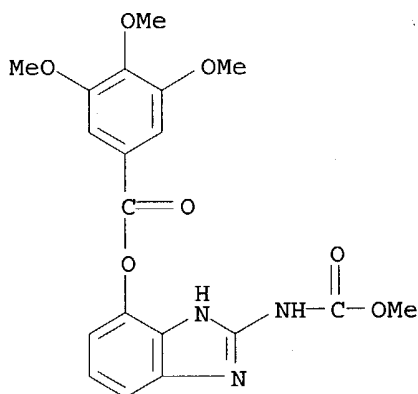
IT 436809-90-4P 443685-81-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of Me benzimidazole-2-carbamates for treating cancer or viral infections)

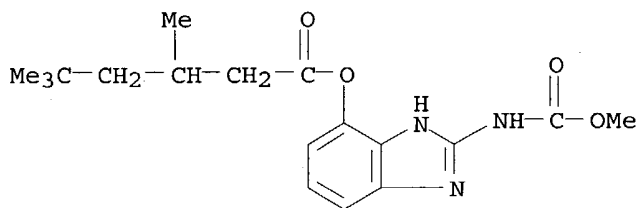
RN 436809-90-4 HCAPLUS

CN Benzoic acid, 3,4,5-trimethoxy-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)



RN 443685-81-2 HCAPLUS

CN Hexanoic acid, 3,5,5-trimethyl-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)



# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
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Agarwal	1993	32B	453	Indian J Chem, Sect	HCAPLUS
Agarwal	1993	48	829	Z Naturforsch, C: Bi	HCAPLUS
Anderson	1994			US 5329012 A	HCAPLUS

Anon	1965		BE 667158	HCAPLUS
Anon	1973		FR 2155888	HCAPLUS
Anon	1987		IN 158878 A	HCAPLUS
Anon	1987		IN 159210 A	HCAPLUS
Anon	1994		EP 617968	HCAPLUS
Anon	1994		WO 9404541	HCAPLUS
Anon	1995		JP 07-277956	HCAPLUS
Anon	1996		WO 9632103	HCAPLUS
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Anon	1996	7943	Merck Index, 12t	
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Atassi	1975	11 599	Europ, J Cancer	HCAPLUS
Aur	1971	78 129	J Pediatr	MEDLINE
Beard	1978		US 4086235 A	HCAPLUS
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Brown	1961	83 1764	J Am Chem Soc	HCAPLUS
Camden	1997		US 5629341 A	HCAPLUS
Camden	1997		US 5656615 A	HCAPLUS
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Camden	2001		US 6265427 B1	HCAPLUS

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Dubey	1985	24B	408	Indian J Chem, Sect	HCAPLUS
Dubey	1985	28	1748	J Med Chem	HCAPLUS
Dupont	1994			Material Safety Data	
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Elgebaly	1985				HCAPLUS
Elgebaly	1985	74	811	J Natl Cancer Inst	HCAPLUS
Frensch	1977			US 4046906 A	HCAPLUS
Friedman	1978	544	605	Biochimica et Biophy	HCAPLUS
Gao	1989	20	110	Zhongguo Yiyao Gongy	HCAPLUS
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Ghannoum	1990				HCAPLUS
Grenda	1965	30	259	J Org Chem	HCAPLUS
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Higley	1994			US 5290801 A	HCAPLUS
Karjalainen	1992			US 5098923 A	HCAPLUS
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King	1992			US 5114951 A	HCAPLUS
Klopping	1970			US 3541213 A	
Kumar	1990	29B	1077	Indian J Chem, Sect	HCAPLUS
Kumar	1984	27	1083	J Med Chem	HCAPLUS
Lacey	1985	34	1073	Biochemical Pharma	HCAPLUS
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Lacey	1988	18	885	International Journa	HCAPLUS
Lapras, M	1975	77	379	Bull Soc Sci Vet et	HCAPLUS
Lassnau	1993	104	119	Chest	
Loux	1961			US 3010968 A	HCAPLUS
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Munro	1988			US 4731366 A	HCAPLUS
Naim	1990	29B	464	Indian J Chem, Sect	HCAPLUS
Nasr	1985		831	Journal of Pharmaceu	HCAPLUS
Nene	1993			Fungicides in Plant	
Ram	1992	35	539	J Med Chem	HCAPLUS
Regel	1975			US 3881014 A	HCAPLUS
Teicher	1995	36	227	Breast Cancer Resear	HCAPLUS
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Vergieva	1982				HCAPLUS
Visen	1987	25	695	Indian J Exp Bio	HCAPLUS
Von Hoff	1995			Private Communicatio	
Wagner	1968			US 3370957 A	
Weisenthal	1992			US 5149527 A	HCAPLUS
Wilde	1994			US 5310748 A	HCAPLUS
Wilde	1994			US 5364875 A	HCAPLUS

L33 ANSWER 4 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2002:551610 HCAPLUS

DOCUMENT NUMBER: 137:109275

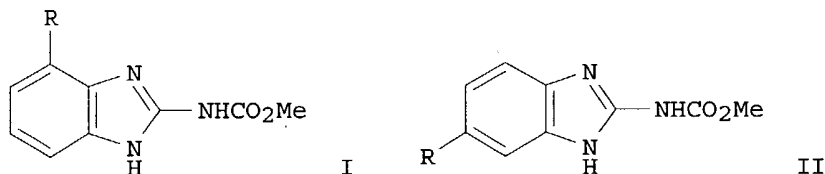
TITLE: Preparation of methyl 1H-benzimidazole-2-carbamates

for treating cancer or viral infections  
 INVENTOR(S): Camden, James Berger; Quada, James C., Jr.; Agyin, Joseph K.  
 PATENT ASSIGNEE(S): The Procter & Gamble Company, USA  
 SOURCE: U.S., 17 pp., Cont. of U.S. Ser. No. 857,811.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	AP
US 6423735	B1	20020723	US
US 6506783 ✓	B1	20030114	US
CN 1254282	A	20000524	CN
US 6077862 ✓	A	20000620	US
AU 763272	B2	20030717	AU 2001-37094 20010418

PRIORITY APPLN. INFO: US 1997-857811 A2 19970516  
 AU 1998-74027 A3 19971126

OTHER SOURCE(S): MARPAT 137:109275  
 GI



AB The title compds. [I (R = OCORa; Ra = (un)substituted Ph), II (R = CONR1R2, CO2R1, OCOR1, NHCOR1; R1 = alkyl, haloalkyl, cycloalkyl, etc.; R2 = H, alkyl)] were prepared Thus, reacting Me 2-amino-5-hydroxybenzimidazolecarbamate with 3,5,5-trimethylhexanoyl chloride in THF afforded 57% I [R = OCOCH2CHMeCH2CMe3] which showed IC50 of 20.1  $\mu$ M and IC50 of 15.8  $\mu$ M for growth inhibition of B16 murine melanoma cells and H29 human colon cancer cells, resp. Such compds. I may be used in combination with a chemotherapeutic agent and/or a potentiator such as DNA-interactive agent, an antimetabolite, a tubulin-interactive agent, a hormonal agent, an antihormonal antigen, and an adrenal corticosteroid.

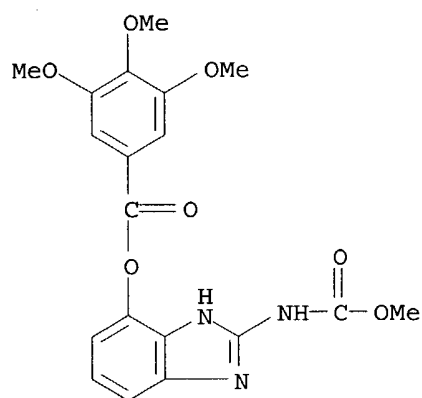
IT 436809-90-4P 443685-81-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of Me benzimidazole-2-carbamates for treating cancer or viral infections)

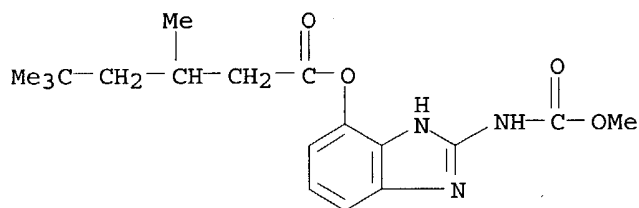
RN 436809-90-4 HCAPLUS

CN Benzoic acid, 3,4,5-trimethoxy-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)



RN 443685-81-2 HCAPLUS

CN Hexanoic acid, 3,5,5-trimethyl-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Adams	1973			US 3738995 A	HCAPLUS
Anderson	1994			US 5329012 A	HCAPLUS
Anon					
Anon	1965			BE 667158	HCAPLUS
Camden	1997			US 5629341 A	HCAPLUS
Camden	1997			US 5656615 A	HCAPLUS
Camden	1997			US 5665713 A	HCAPLUS
Camden	1997			US 5665751 A	HCAPLUS
Camden	1998			US 5767138 A	HCAPLUS
Camden	1998			US 5770616 A	HCAPLUS
Camden	1998			US 5840742 A	HCAPLUS
Camden	1998			US 5854231 A	HCAPLUS
Camden	1999			US 5872142 A	HCAPLUS
Camden	1999			US 5880144 A	HCAPLUS
Camden	1999			US 5900429 A	HCAPLUS
Camden	1999			US 5902804 A	HCAPLUS
Camden	1999			US 5908855 A	HCAPLUS
Camden	1999			US 5929099 A	HCAPLUS
Camden	1999			US 5932604 A	HCAPLUS
Camden	1999			US 5932609 A	HCAPLUS
Camden	2000			US 6025377 A	HCAPLUS
Camden	2000			US 6077862 A	HCAPLUS
Camden	2000			US 6090796 A	HCAPLUS
Camden	2000			US 6110953 A	HCAPLUS

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Camden	2001		US 6177460 B1	HCAPLUS
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Camden	2001		US 6265427 B1	HCAPLUS
Camden	2001		US 6271217 B1	HCAPLUS
Dersch	1970		US 3499761 A	
Edlind	1995		US 5434163 A	HCAPLUS
Frensch	1977		US 4046906 A	HCAPLUS
Harsanyi	1989		US 4814329 A	HCAPLUS
Heyes	1976		US 3956262 A	HCAPLUS
Higley	1994		US 5290801 A	HCAPLUS
Karjalainen	1992		US 5098923 A	HCAPLUS
King	1992		US 5114951 A	HCAPLUS
Klopping	1970		US 3541213 A	
Latif	1993	46 203	Jpn J Med Sci Biol	HCAPLUS
Loux	1961		US 3010968 A	HCAPLUS
Lunn	1972		US 3669969 A	HCAPLUS
Munro	1988		US 4731366 A	HCAPLUS
Nasr	1985	831	Journal of Pharmaceu	HCAPLUS
Regel	1975		US 3881014 A	HCAPLUS
Wagner	1968		US 3370957 A	
Weisenthal	1992		US 5149527 A	HCAPLUS
Wilde	1994		US 5310748 A	HCAPLUS
Wilde	1994		US 5364875 A	HCAPLUS

L33 ANSWER 5 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2002:534039 HCAPLUS

DOCUMENT NUMBER: 137:93753

TITLE: Preparation of 2,5-disubstituted benzimidazoles used in the treatment of cancer or viral infections

INVENTOR(S): Camden, James Berger; Aguin, Joseph K.; Quada, James C., Jr.

PATENT ASSIGNEE(S): The Procter &amp;

SOURCE: U.S., 18 pp., er. No. 857,811.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

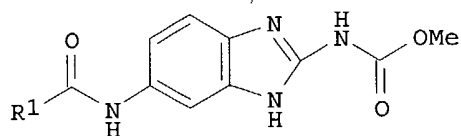
PATENT INFORMATION:

PATENT NO.	KIND	DATE	TE
US 6420411 ✓	B1	20020716	US 2000-676202 20000929
US 6506783 ✓	B1	20030114	US 1997-857811 19970516
CN 1254282	A	20000524	CN 1997-182190 19971126
US 6077862 ✓	A	20000620	US 1999-259969 19990301
AU 763272	B2	20030717	AU 2001-37094 20010418
PRIORITY APPLN. INFO.:			US 1997-857811 A2 19970516
			AU 1998-74027 A3 19971126

OTHER SOURCE(S): MARPAT 137:93753

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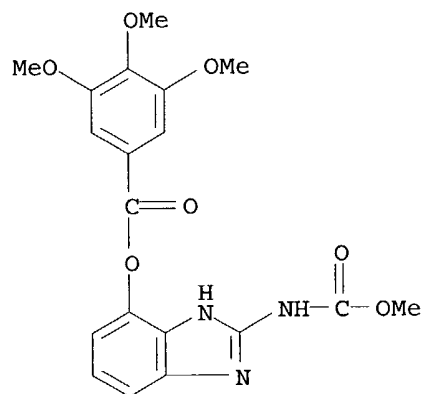


AB Title compds. I [R1 = (halo)alkyl, hydroxyalkyl, (halo)alkenyl, cycloalkyl, heterocycloalkyl, substituted Ph and analogs thereof] were prepared. For instance, Me 5-amino-1H-benzimidazol-2-ylcarbamate was acylated with 3,5,5-trimethylhexanoyl chloride to provide I (R1 = CH<sub>2</sub>CH(CH<sub>3</sub>)CH<sub>2</sub>C(CH<sub>3</sub>)<sub>3</sub>; II). II had IC<sub>50</sub> = 6.6 and 7.0 μM for the murine melanoma and human colon carcinoma cell line resp. I are used for the treatment of cancers or viral infections and may be used in combination with a chemotherapeutic agent and/or a potentiator.

IT 436809-90-4P, Benzoic acid, 3,4,5-trimethoxy-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester  
 RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug; preparation of substituted benzimidazole-2-carbamates as antiviral/antitumor agents)

RN 436809-90-4 HCAPLUS

CN Benzoic acid, 3,4,5-trimethoxy-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)



# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Adams	1973			US 3738995 A	HCAPLUS
Agarwal	1993	48	829	Z Naturforsch, C: Bi	HCAPLUS
Agrawal	1983	22B	146	Indian J Chem, Sect	HCAPLUS
Anderson	1994			US 5329012 A	HCAPLUS
Anon				JP 07277956	HCAPLUS
Anon	1965			BE 667158	HCAPLUS
Anon	1973			FR 2155888	HCAPLUS
Anon	1994			WO 9404541	HCAPLUS
Anon	1996			WO 9632103	HCAPLUS
Anon	1996			WO 9632104	HCAPLUS
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Anon	1996			WO 9632115	HCAPLUS
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Anon	1996			WO 9640120	HCAPLUS
Anon	1996			WO 9640122	HCAPLUS
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Anon	1998			WO 9851304	HCAPLUS
Anon	1999			WO 9959585	HCAPLUS
Anon	1996		7943	Merck Index, 12t	
Anon	1968		1035	Merck Index, Eighth	
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Aur	1971	78	129	J Pediatr	MEDLINE
Bissery	1995	22	3	Seminars in Oncology	
Brabender	1976	36	905	Cancer Research	
Brown	1961	83	1764	J Am Chem Soc	HCAPLUS
Camden	1997			US 5629341 A	HCAPLUS
Camden	1997			US 5656615 A	HCAPLUS
Camden	1997			US 5665713 A	HCAPLUS
Camden	1997			US 5665751 A	HCAPLUS
Camden	1998			US 5767138 A	HCAPLUS
Camden	1998			US 5770616 A	HCAPLUS
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Camden	1999			US 5929099 A	HCAPLUS
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Camden	2001			US 6228876 B1	HCAPLUS
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Camden	2001			US 6262093 B1	HCAPLUS
Camden	2001			US 6265427 B1	HCAPLUS
Camden	2001			US 6271217 B1	HCAPLUS
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Carter, W	1975		277	Selective Inhibitors	
Delatour	1976	31	505	Therapie	HCAPLUS
Dersch	1970			US 3499761 A	
Divakar	1989	28B	252	Indian J Chem, Sect	HCAPLUS
Dupont	1994			Material Safety Data	
Edlind	1995			US 5434163 A	HCAPLUS
Elgebaly	1985				HCAPLUS
Elgebaly	1985	74	811	J Natl Cancer Inst	HCAPLUS
Frensch	1977			US 4046906 A	HCAPLUS
Friedman	1978	544	605	Biochimica et Biophy	HCAPLUS
Georgopadakov	1994	264	371	Science	

Ghannoum	1990				HCAPLUS
Grenda	1965	30	259	J Org Chem	HCAPLUS
Harsanyi	1989			US 4814329 A	HCAPLUS
Heyes	1976			US 3956262 A	HCAPLUS
Higley	1994			US 5290801 A	HCAPLUS
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King	1992			US 5114951 A	HCAPLUS
Klopping	1970			US 3541213 A	
Kumar	1984	27	1083	J Med Chem	HCAPLUS
Lacey	1985	34	1073	Biochemical Pharma	HCAPLUS
Lacey	1985	34	3603	Biochemical Pharma	HCAPLUS
Lacey	1988	18	885	International Journa	HCAPLUS
Lapras, M				Bull Soc Sci Vet et	
Lassnau	1993	104	119	Chest	
Loux	1961			US 3010968 A	HCAPLUS
Lovett	1979	39	5315	Diss Abstr Int, (Sci	
Lundy	1997				HCAPLUS
Lundy	1978	62	1955	Cancer Treat Rep	MEDLINE
Lundy	1976	27	132	Surg Forum	MEDLINE
Lunn	1972			US 3669969 A	HCAPLUS
Lyon	1975	77	379		
Marinovich	1994	94	173	Toxicol	
Menzel	1979				HCAPLUS
Munro	1988			US 4731366 A	HCAPLUS
Nasr	1985		831	Journal of Pharmaceu	HCAPLUS
Nene	1993			Fungicides in Plant	
Niwas			4	Indian J Chem, Sect	HCAPLUS
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Rajappa			5	J Chem Res, Synop	HCAPLUS
Rajappa				Tetrahedron Lett	HCAPLUS
Ram				J Med Chem	
Regel				US 3881014 A	HCAPLUS
Sawhney				Indian J Chem, Sect	
Sokhanenkova				Tr Gel'mintol Lab, A	HCAPLUS
Srivastava				Pharmazie	HCAPLUS
Teicher			227	Breast Cancer Resear	HCAPLUS
Thompson, W	1993-	994	154	Agricultural Chemica	
Vergieva	1982				HCAPLUS
Von Hoff	1995			Private Communicatio	
Wagner	1968			US 3370957 A	
Weisenthal	1992			US 5149527 A	HCAPLUS
Wilde	1994			US 5310748 A	HCAPLUS
Wilde	1994			US 5364875 A	HCAPLUS

*applicant*

L33 ANSWER 6 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 2002:461292 HCAPLUS

DOCUMENT NUMBER: 137:33301

TITLE: Preparation of 2,5-disubstituted benzimidazoles used in the treatment of cancer or viral infections

INVENTOR(S): Quada, James C., Jr.; Agyin, Joseph K.; Camden, James Berger

PATENT ASSIGNEE(S): The Procter &amp; Gamble Company, USA

SOURCE: U.S., 18 pp., Cont.-in-part of U.S. Ser. No. 857,811.

CODEN: USXXAM

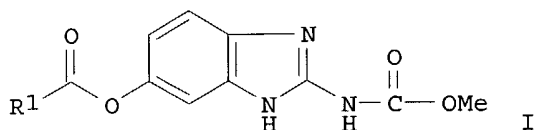
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6407131	B1	20020618	US 2000-676030	20000929
US 6506783 ✓	B1	20030114	US 1997-857811	19970516
CN 1254282	A	20000524	CN 1997-182190	19971126
US 6077862 ✓	A	20000620	US 1999-259969	19990301
AU 763272	B2	20030717	AU 2001-37094	20010418
PRIORITY APPLN. INFO.:			US 1997-857811	A2 19970516
			AU 1998-74027	A3 19971126
OTHER SOURCE(S):			MARPAT 137:33301	
GI				



AB Title compds. I [R1 = (halo)alkyl, hydroxyalkyl, (halo)alkenyl, cycloalkyl, heterocycloalkyl, substituted Ph and analogs thereof] were prepared For instance, Me 2-amino-5-hydroxybenzimidazole carbamate was acylated with 3,5,5-trimethylhexanoyl chloride to provide I (R1 = CH<sub>2</sub>CH<sub>2</sub>CH(CH<sub>3</sub>)CH<sub>2</sub>C(CH<sub>3</sub>)<sub>3</sub>; II). II had IC<sub>50</sub> = 20.1 and 15.8 μM for the murine melanoma and human colon carcinoma cell line resp. I are used for the treatment of cancers or viral infections and may be used in combination with a chemotherapeutic agent and/or a potentiator.

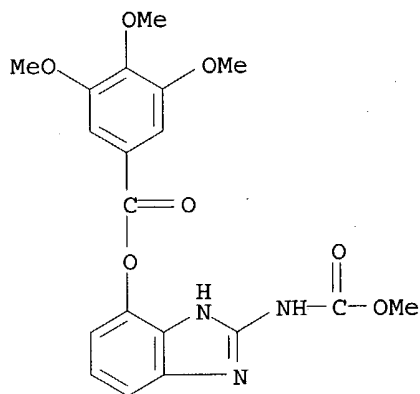
IT 436809-90-4P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug; preparation of substituted benzimidazole-2-carbamates as antiviral/antitumor agents)

RN 436809-90-4 HCAPLUS

CN Benzoic acid, 3,4,5-trimethoxy-, 2-[(methoxycarbonyl)amino]-1H-benzimidazol-4-yl ester (9CI) (CA INDEX NAME)



RETABLE

Referenced Author	Year	VOL	PG	Referenced Work	Referenced
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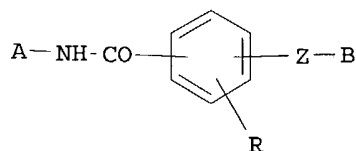
(RAU)	(RPY)	(RVL)	(RPG)	(RWK)	File
=====	=====	=====	=====	=====	=====
Actor	1975			US RE28403 E	
Adams	1973			US 3738995 A	HCAPLUS
American Chemical Socie	2001			No publication given	
Anderson	1994			US 5329012 A	HCAPLUS
Anon					
Anon	1968			GB 1123317	HCAPLUS
Anon	1973			FR 2155888	HCAPLUS
Anon	1976			WO 9632107	HCAPLUS
Anon	1994			EP 617968	HCAPLUS
Anon	1994			WO 9404541	HCAPLUS
Anon	1995			JP 07277956	HCAPLUS
Anon	1995			JP 07277956	HCAPLUS
Anon	1996			WO 9632103	HCAPLUS
Anon	1996			WO 9632104	HCAPLUS
Anon	1996			WO 9632115	HCAPLUS
Anon	1996			WO 9640119	HCAPLUS
Anon	1996			WO 9640120	HCAPLUS
Anon	1996			WO 9640122	HCAPLUS
Anon	1997			WO 9705870	HCAPLUS
Anon	1997			WO 9705872	HCAPLUS
Anon	1997			WO 9705873	HCAPLUS
Anon	1998			WO 9832440	HCAPLUS
Anon	1998			WO 9851303	HCAPLUS
Anon	1998			WO 9851304	HCAPLUS
Anon	1999			WO 9959585	HCAPLUS
Anon	2000			WO 0021504	HCAPLUS
Anon	2000			WO 0050007	HCAPLUS
Anon	1996		7943	Merck Index, 12t	
Anon	1968		1035	Merck Index, Eighth	
Anon	1983		777	Stedman's Medical Di	
Atassi	1975	11	599	Europ, J Cancer	HCAPLUS
Aur	1971	78	129	J Pediatr	MEDLINE
Autant	1995			US 5441742 A	HCAPLUS
Berg	1992	13	59	Journal of Photochem	HCAPLUS
Berg	1992	13	59	Journal of Photochem	HCAPLUS
Bissery	1995	22	3	Seminars in Oncology	
Brabender	1976	36	905	Cancer Research	
Brown	1961	83	1764	J Am Chem Soc	HCAPLUS
Camden	1997			US 5629341 A	HCAPLUS
Camden	1997			US 5656615 A	HCAPLUS
Camden	1997			US 5665713 A	HCAPLUS
Camden	1997			US 5665751 A	HCAPLUS
Camden	1998			US 5767138 A	HCAPLUS
Camden	1998			US 5770616 A	HCAPLUS
Camden	1998			US 5840742 A	HCAPLUS
Camden	1998			US 5854231 A	HCAPLUS
Camden	1999			US 5872142 A	HCAPLUS
Camden	1999			US 5880144 A	HCAPLUS
Camden	1999			US 5900429 A	HCAPLUS
Camden	1999			US 5902804 A	HCAPLUS
Camden	1999			US 5908855 A	HCAPLUS
Camden	1999			US 5929099 A	HCAPLUS
Camden	1999			US 5932604 A	HCAPLUS
Camden	1999			US 5932609 A	HCAPLUS
Camden	2000			US 6025377 A	HCAPLUS
Camden	2000			US 6077862 A	HCAPLUS
Camden	2000			US 6090796 A	HCAPLUS
Camden	2000			US 6110953 A	HCAPLUS

Camden	2000			US 6136835 A	HCAPLUS
Camden	2001			US 6177460 B1	HCAPLUS
Camden	2001			US 6200922 B1	HCAPLUS
Camden	2001			US 6228876 B1	HCAPLUS
Camden	2001			US 6245789 B1	HCAPLUS
Camden	2001			US 6251870 B1	HCAPLUS
Camden	2001			US 6262093 B1	HCAPLUS
Camden	2001			US 6265427 B1	HCAPLUS
Camden	2001			US 6271217 B1	HCAPLUS
Carter	1981		362	Chemotherapy of Canc	
Carter, W	1975		277	Selective Inhibitors	
Delatour	1976	31	505	Therapie	HCAPLUS
Dersch	1970			US 3499761 A	
Dupont	1994			Material Safety Data	
Edlind	1995			US 5434163 A	HCAPLUS
Elgebaly	1985				HCAPLUS
Elgebaly	1985	74	811	J Natl Cancer Inst	HCAPLUS
Frensch	1977			US 4046906 A	HCAPLUS
Friedman	1978	544	605	Biochimica et Biophy	HCAPLUS
Georgopapadakov	1994	264	371	Science	
Ghannoum	1990				HCAPLUS
Grenda	1965	30	259	J Org Chem	HCAPLUS
Harsanyi	1989			US 4814329 A	HCAPLUS
Heyes	1976			US 3956262 A	HCAPLUS
Higley	1994			US 5290801 A	HCAPLUS
Karjalainen	1992			US 5098923 A	HCAPLUS
Katiyar	1994				HCAPLUS
King	1992			US 5114951 A	HCAPLUS
Klopping	1970			US 3541213 A	
Koparkar	1994			US 5284662 A	HCAPLUS
Lacey	1985	34	1073	Biochemical Pharma	HCAPLUS
Lacey	1985	34	3603	Biochemical Pharma	HCAPLUS
Lacey	1988	18	885	International Journa	HCAPLUS
Lapras, M	1975	77	379	Bull Soc Sci Vet et	HCAPLUS
Lassnau	1993	104	119	Chest	
Latif	1993	46	203	Jpn J Med Sci Biol	HCAPLUS
Loux	1961			US 3010968 A	HCAPLUS
Lovett	1979	39	5315	Diss Abstr Int, (Sci	
Lundy	1997				HCAPLUS
Lundy	1978	62	1955	Cancer Treat Rep	MEDLINE
Lundy	1976	27	132	Surg Forum	MEDLINE
Lunn	1972			US 3669969 A	HCAPLUS
Marinovich	1994	94	173	Toxicol	
Menzel	1979				HCAPLUS
Munro	1988			US 4731366 A	HCAPLUS
Nene	1993			Fungicides in Plant	
Ram	1992	35	539	J Med Chem	HCAPLUS
Regel	1975			US 3881014 A	HCAPLUS
Seabrook	1996			US 5554373 A	HCAPLUS
Teicher	1995	36	227	Breast Cancer Resear	HCAPLUS
Thompson, W	1993-994	154		Agricultural Chemica	
Vergieva	1982				HCAPLUS
Von Hoff	1995			Private Communicatio	
Wagner	1968			US 3370957 A	
Weisenthal	1992			US 5149527 A	HCAPLUS
Wilde	1994			US 5310748 A	HCAPLUS
Wilde	1994			US 5364875 A	HCAPLUS

L33 ANSWER 7 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7  
 ACCESSION NUMBER: 1999:487286 HCAPLUS

DOCUMENT NUMBER: 131:116236  
 TITLE: Preparation of heterocyclylbenzamide derivatives as vasopressin antagonists  
 INVENTOR(S): Setoi, Hiroyuki; Ohkawa, Takehiko; Sawada, Yuki; Osoda, Kazuhiko; Oku, Teruo  
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 102 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9937637	A1	19990729	WO 1999-JP72	19990111
W: AU, BR, CA, CN, HU, IN, JP, KR, MX, RU, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9917856	A1	19990809	AU 1999-17856	19990111
EP 1051415	A1	20001115	EP 1999-900176	19990111
EP 1051415	B1	20030924		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
JP 2002513425	T2	20020508	JP 1999-538151	19990111
AT 250599	E	20031015	AT 1999-900176	19990111
ES 2203057	T3	20040401	ES 1999-900176	19990111
US 6495542	B1	20021217	US 2000-600857	20001016
PRIORITY APPLN. INFO.:			AU 1998-1500	A 19980127
			WO 1999-JP72	W 19990111
OTHER SOURCE(S):		MARPAT 131:116236		
GI				



AB The title compds. I [A is an optionally substituted heterocyclic group; R is a lower alkoxy; Z is CO or CH<sub>2</sub>; and B is a saturated or unsatd. condensed ring group selected from the group consisting of benzazepinyl, benzodiazepinyl, pyridoazepinyl, pyridodiazepinyl, thienoazepinyl, benzoxazepinyl, benzothiazepinyl, imidazobenzazepinyl, pyridobenzoxazepinyl and indolinyl, each member being optionally substituted] are prepared. In an in vitro test for human vasopressin 1 receptor antagonism, 2-methoxy-N-(2-methyl-1H-benzimidazol-4-yl)-4-(2,3,4,5-tetrahydro-1H-1-benzazepin-1-yl)carbonylbenzamide showed IC<sub>50</sub> of 0.41 nM.

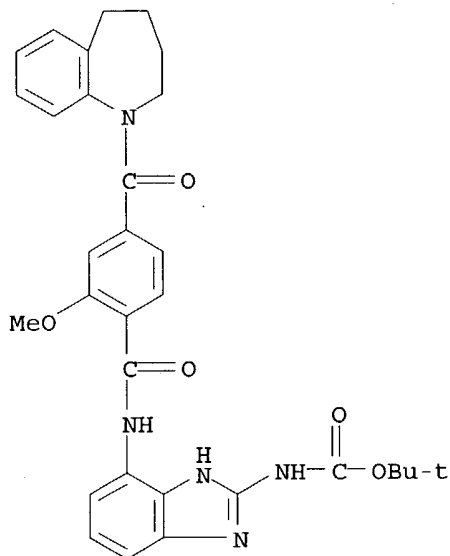
IT **233263-10-0P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of heterocyclylbenzamide derivs. as vasopressin antagonists)

RN 233263-10-0 HCAPLUS

CN Carbamic acid, [4-[[2-methoxy-4-[(2,3,4,5-tetrahydro-1H-1-benzazepin-1-yl)carbonyl]benzoyl]amino]-1H-benzimidazol-2-yl]-, 1,1-dimethylethyl ester

(9CI) (CA INDEX NAME)



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Fujisawa Pharmaceutical	1994			EP 0620216 A	HCAPLUS
Japan Tobacco Inc	1997			JP 09020779 A	HCAPLUS
Otsuka Pharmaceutical C	1991			WO 9105549 A	HCAPLUS

L33 ANSWER 8 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8

ACCESSION NUMBER: 1998:394328 HCAPLUS

DOCUMENT NUMBER: 129:67773

TITLE: Preparation of benzamide derivatives having a vasopressin antagonistic activity

INVENTOR(S): Setoi, Hiroyuki; Ohkawa, Takehiko; Zenkoh, Tatsuya; Sawada, Hitoshi; Sawada, Yuki; Oku, Teruo

PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan; Setoi, Hiroyuki; Ohkawa, Takehiko; Zenkoh, Tatsuya; Sawada, Hitoshi; Sawada, Yuki; Oku, Teruo

SOURCE: PCT Int. Appl., 332 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

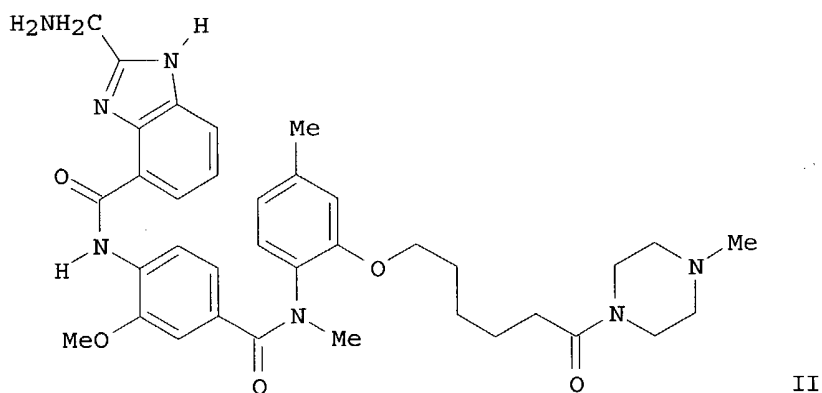
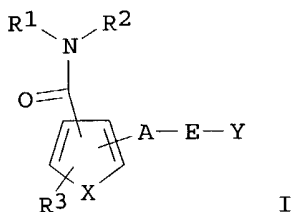
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9824771	A1	19980611	WO 1997-JP4192	19971118
W: AU, CA, CN, HU, IL, JP, KR, MX, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9749672	A1	19980629	AU 1997-49672	19971118
EP 946519	A1	19991006	EP 1997-912493	19971118
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
JP 2001505193	T2	20010417	JP 1998-521225	19971118



US 6207693	B1	20010327	US 1999-308662	19990602
US 6316482	B1	20011113	US 2000-614132	20000711
PRIORITY APPLN. INFO.:			AU 1996-3953	A 19961202
			WO 1997-JP4192	W 19971118
			US 1999-308662	A3 19990602

OTHER SOURCE(S): MARPAT 129:67773  
GI



AB The title compds. [I; R1 = (un)substituted aryl, cyclo(lower)alkyl, heterocyclyl; R2 = H, lower alkyl, etc.; R3 = H, halo, OH, etc.; A = a single bond, O, NH; E = lower alkylene, lower alkenylene, etc.; X = CH:CH, CH:N, S; Y = (un)substituted aryl, condensed heterocyclyl, etc.] and their pharmaceutically acceptable salts, useful in treatment and/or prevention of hypertension, heart failure, renal insufficiency, edema, ascites, vasopressin parasecretion syndrome, hepatocirrhosis, hyponatremia, hypokalemia, diabetic, circulation disorder, cerebrovascular disease, Meniere's disease or motion sickness, were prepared. Thus, the title compound II showed IC50 of 1.5 nM against vasopressin 1 receptor binding.

IT 208770-65-4P

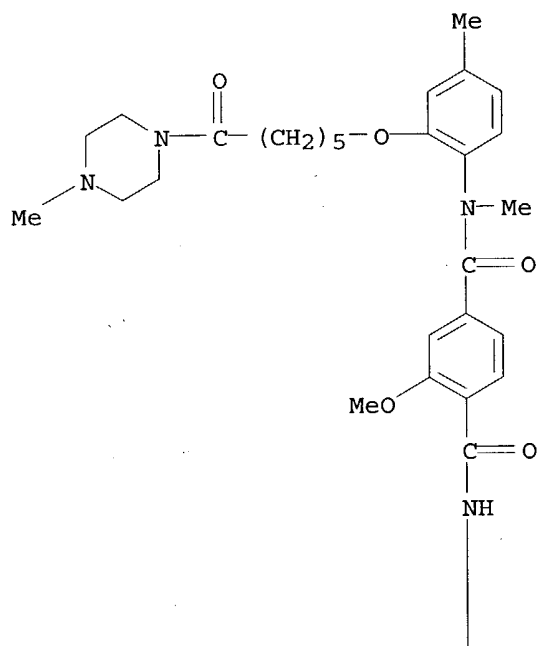
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of benzamide derivs. having a vasopressin antagonistic activity)

RN 208770-65-4 HCAPLUS

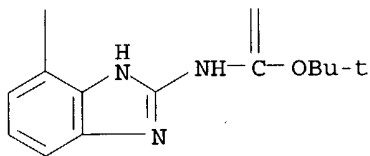
CN Carbamic acid, [4-[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]benzoyl]amino]-1H-

benzimidazol-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



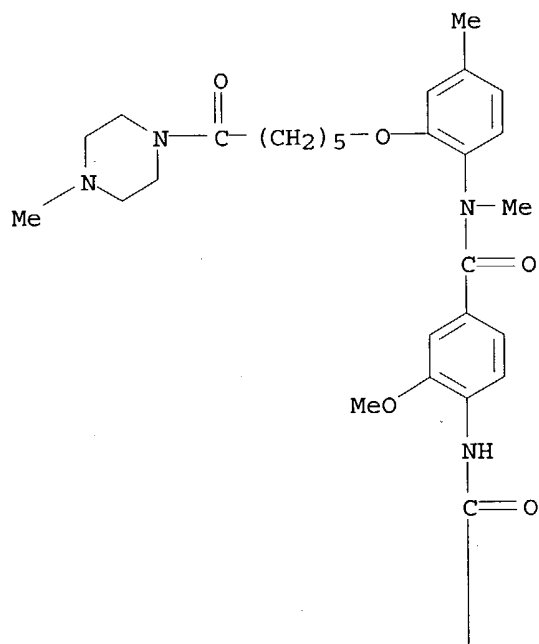
IT 208767-99-1P 208768-81-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of benzamide derivs. having a vasopressin antagonistic activity)

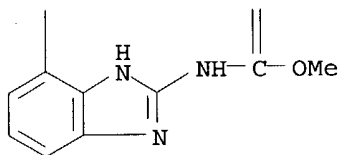
RN 208767-99-1 HCAPLUS

CN Carbamic acid, [4-[[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]phenyl]amino]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

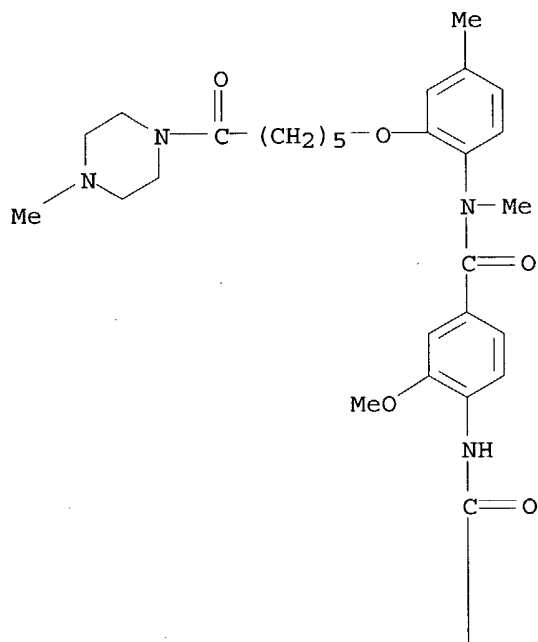


PAGE 2-A

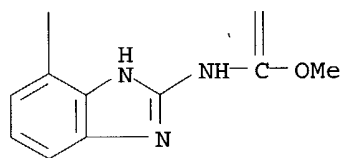


RN 208768-81-4 HCAPLUS  
 CN Carbamic acid, [4-[[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]phenyl]amino]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



● 2 HCl

## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Abdalla, M	1979	20	245	EGYPT J CHEM	HCAPLUS
American Cyanamid Co	1995			EP 0636625 A	HCAPLUS
American Cyanamid Co	1995			EP 0640592 A	HCAPLUS
Fujisawa Pharmaceutical	1995			WO 9529152 A	HCAPLUS
Grenier-Loustalot, M	1993	31	3049	JOURNAL OF POLYMER S	HCAPLUS
Nguyen, M	1977-	86-95	4185CS	CHEMICAL SUBSTANCES,	HCAPLUS
Nguyen, M	1978	16	26	TAP CHI HOA HOC	
Otsuka Pharma Co Ltd	1991			WO 9105549 A	HCAPLUS
Otsuka Pharma Co Ltd	1995			WO 9534540 A	HCAPLUS
Perron, Y	1962	5	1016	JOURNAL OF MEDICINAL	HCAPLUS
Salem, M	1987-	106-1	57433	CHEMICAL SUBSTANCES,	HCAPLUS
Salem, M	1987	9	177	J CHEM SOC PAK	

Sandoz Ag	1978			DE 2802023 A	HCAPLUS
Selim, M	1992-	116-1	410	CHEMICAL SUBSTANCES,	HCAPLUS
Selim, M	1992	69	688	J INDIAN CHEM SOC	HCAPLUS
Varnavas, A	1996	51	697	PHARMAZIE	HCAPLUS
Yamazaki, T	1972		4533	TETRAHEDRON LETTERS	HCAPLUS

L33 ANSWER 9 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:608618 HCAPLUS

DOCUMENT NUMBER: 129:230735

TITLE: Preparation of cycloimido-substituted benzofused heterocyclic herbicides

INVENTOR(S): Crawford, Scott D.; Maravetz, Lester L.; Theodoridis, George; Dugan, Benjamin

PATENT ASSIGNEE(S): FMC Corp., USA

SOURCE: PCT Int. Appl., 69 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9838188	A1	19980903	WO 1998-US3647	19980225
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6077812	A	20000620	US 1998-28636	19980224
ZA 9801580	A	19980827	ZA 1998-1580	19980225
AU 9866670	A1	19980918	AU 1998-66670	19980225
AU 734666	B2	20010621		
EP 968207	A1	20000105	EP 1998-908708	19980225
R: BE, CH, DE, ES, FR, GB, GR, IT, LI, NL				
BR 9807607	A	20000222	BR 1998-7607	19980225
TR 9902069	T2	20000522	TR 1999-9902069	19980225
JP 2002521001	T2	20020709	JP 1998-537797	19980225
US 6352958	B1	20020305	US 2000-547609	20000412
CN 1413990	A	20030430	CN 2001-139440	20011123
PRIORITY APPLN. INFO.:			US 1997-39172P	P 19970226
			US 1998-28636	A 19980224
			WO 1998-US3647	W 19980225
OTHER SOURCE(S):			MARPAT 129:230735	
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The title compds. [I; A, B = (un)substituted CH, N, (un)substituted NH, O; R = H, OH, SH, etc.; X = H, F, Cl, etc.; n = 0-3; J = II-VII (wherein R3 = H, alkyl, haloalkyl, etc.)], useful in controlling weeds, were prepared Thus, heating at reflux 1-methyl-6-trifluoromethyl-3-(6-amino-4-bromo-2-fluoro-5-hydroxyphenyl)-2,4(1H,3H)-pyrimidinedione with carbonylimidazole in THF followed by reaction of the resulting 1-methyl-3-trifluoromethyl-3-

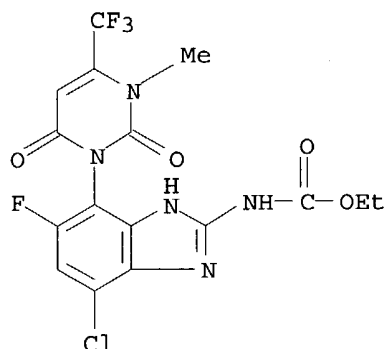
(7-bromo-5-fluorobenzoxazol-2-on-4-yl)-2,4(1H,3H)-pyrimidinedione with MeI in the presence of Ag2O in CH2Cl2 afforded VIII which showed 100% control against, e.g., velvetleaf and blackgrass.

IT 212754-54-6P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of cycloimido-substituted benzofused heterocyclic herbicides)

RN 212754-54-6 HCAPLUS

CN Carbamic acid, [7-chloro-4-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-1H-benzimidazol-2-yl]-, ethyl ester (9CI) (CA INDEX NAME)



# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Ag	1996			DE 19504188 A	HCAPLUS
Bayer Ag	1997			DE 19523640 A	HCAPLUS
Crawford, S	1997			US 5661108 A	HCAPLUS
Fmc Corp	1995			WO 9505079 A	HCAPLUS
Fmc Corp	1997			WO 9708170 A	HCAPLUS
Hoffmann La Roche	1988			EP 0255047 A	HCAPLUS
Kumiai Chemical Industr	1997			WO 9729105 A	HCAPLUS
Kumiai Chemical Industr	1997			WO 9742188 A	HCAPLUS
Nihon Tokushu Noyaku Se	1990			EP 0373461 A	HCAPLUS
Nissan Chemical Ind Ltd	1989			EP 0304920 A	HCAPLUS
Sumitomo Chemical Co	1992			EP 0476697 A	HCAPLUS
Sumitomo Chemical Co	1993			EP 0561319 A	HCAPLUS
Sumitomo Chemical Co	1994			EP 0617033 A	HCAPLUS

L33 ANSWER 10 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:768348 HCAPLUS

DOCUMENT NUMBER: 128:70413

TITLE: Anthelmintic efficiency of a benzimidazole carbamate compound against certain gastrointestinal nematodes of sheep, crossbred calves, poultry and its comparison to fenbendazole

AUTHOR(S): Chaudhri, S. S.; Yadav, C. L.; Gupta, R. P.

CORPORATE SOURCE: CCS Haryana Agricultural University, Regional Research Station, Karnal, 132 001, India

SOURCE: Indian Journal of Animal Sciences (1997), 67(10), 863-865

CODEN: IJLAA4; ISSN: 0367-8318

PUBLISHER: Indian Council of Agricultural Research

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The single dose of benzimidazole carbamate (20 mg/kg) can be used for chemotherapy of major gastrointestinal nematodes of sheep, crossbred calves, and poultry birds.

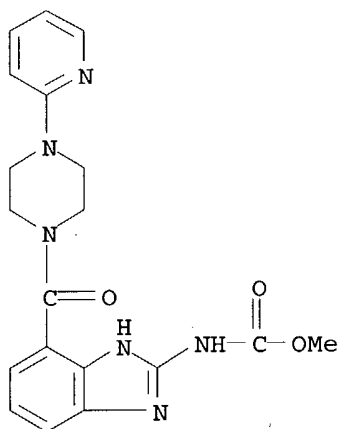
IT 200499-91-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anthelmintic effects of benzimidazole carbamate vs. fenbendazole against gastrointestinal nematodes of sheep, crossbred calves, poultry)

RN 200499-91-8 HCAPLUS

CN Carbamic acid, [4-[[4-(2-pyridinyl)-1-piperazinyl]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Agrawal, R	1995		129	Seventh National Con	
Chaudhri, S	1993	14	121	Agricultural Review	
Katoch, R	1995	9	27	Journal of Veterinar	
Singh, D	1996	10	53	Journal of Veterinar	
Soulsby, E	1965	I		Textbook of Veterina	
Yadav, C	1993	23	411	International Journa	MEDLINE
Yadav, C	1996	10	47	Journal of Veterinar	
Yadav, C	1995	60	355	Veterinary Parasitol	MEDLINE

L33 ANSWER 11 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:124172 HCAPLUS

DOCUMENT NUMBER: 120:124172

TITLE: Segregation of activity profile in benzimidazoles: effect of spacers at 5(6)-position of methyl benzimidazole-2-carbamates

AUTHOR(S): Agarwal, Shiv K.; Sharma, Satyavan; Bhaduri, A. P.  
CORPORATE SOURCE: Med. Chem. Div., Cent. Drug Res. Inst., Lucknow, 226001, India

SOURCE: Zeitschrift fuer Naturforschung, C: Journal of Biosciences (1993) 48(11-12), 829-38  
CODEN: ZNCBDA; ISSN: 0341-0382

DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The design and synthesis of a series of Me 5(6)-substituted benzimidazole-2-carbamates as potential anthelmintics are described. A rational anal. of the structural parameters which segregate the activity of resulting benzimidazole-2-carbamates against enteric and tissue dwelling helminths is presented. The influence of single and multiple spacers, which link the pharmacophores at 5(6)-position of benzimidazole-2-carbamate, on the activity against *Ancylostoma ceylanicum* (hookworm), *Syphacia obvelata* (pinworm), *Hymenolepis nana* (tapeworm) *Litomosoides carinii* and *Acanthocheilonema viteae* (filarial worm) has been presented. This anal. indicates that for activity against intestinal helminth the presence of one spacer holding the pharmacophore approx. 3 Å apart from the parent nucleus is usually preferred. While for activity against tissue dwelling parasite, the repetition of the benzimidazole-2-carbamate nucleus joined together through the 5,5'-position with one spacer kept apart by distance of 3 Å unit is usually desired.

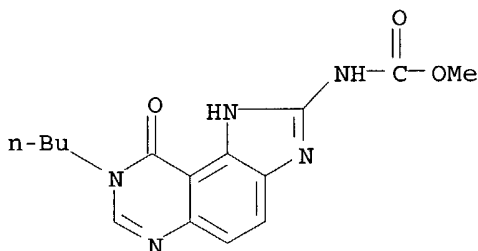
IT 153213-43-5

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anthelmintic activity of, structure-activity relations in)

RN 153213-43-5 HCAPLUS

CN Carbamic acid, (8-butyl-8,9-dihydro-9-oxo-1H-imidazo[4,5-f]quinazolin-2-yl)-, methyl ester (9CI) (CA INDEX NAME)



L33 ANSWER 12 OF 17 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1982:438906 HCAPLUS

DOCUMENT NUMBER: 97:38906

TITLE: Possible anthelmintic agents: syntheses of various imidazoquinazolinone carbamates

AUTHOR(S): Kumar, Shiv; Kansal, V. K.; Bhaduri, A. P.

CORPORATE SOURCE: Div. Med. Chem., Cent. Drug Res. Inst., Lucknow, 226 001, India

SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1981), 20B(12), 1068-71

CODEN: IJSBDB; ISSN: 0376-4699

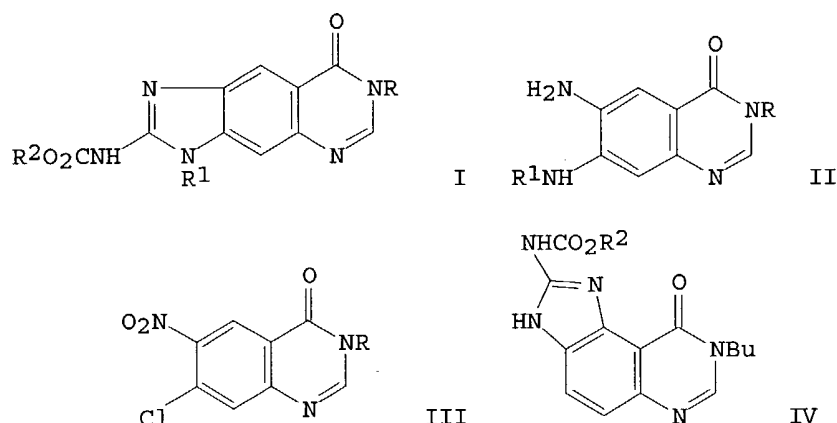
DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 97:38906

GI





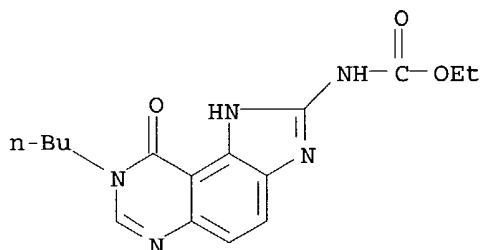
AB Ten imidazoquinazolines I [R = H, Me, Bu, heptyl; R1 = H, PhCH2, Ph(CH2)3, HOCH2CH2; R2 = Me, Et] were prepared by cyclization of the diaminoquinazolines II with MeSC(:NH)NH2.H2SO4 and ClCO2R2. II were prepared in 4 steps from the chloroquinazolinone III (R = H). The imidazoquinazolines IV (R2 = Me, Et) were similarly prepared from the corresponding diaminoquinazoline. III (R = H, Bu) reacted with NH3 to give ring opened products. At 100 mg/kg I caused 100% clearance of *Hymenolepis nana*.

IT 81946-27-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation and anthelmintic activity of)

RN 81946-27-2 HCAPLUS

CN Carbamic acid, (8-butyl-8,9-dihydro-9-oxo-1H-imidazo[4,5-f]quinazolin-2-yl)-, ethyl ester (9CI) (CA INDEX NAME)



=> d 133 ibib abs hitstr 13

L33 ANSWER 13 OF 17 USPATFULL on STN

ACCESSION NUMBER: 2002:332732 USPATFULL

TITLE: Benzamide derivatives as vasopressin antagonists

INVENTOR(S): Setoi, Hiroyuki, Ibaraki, JAPAN

Ohkawa, Takehiko, Ishigemachi, JAPAN

Sawada, Yuki, Ushiku, JAPAN

Osoda, Kazuhiko, Tsukuba, JAPAN

Oku, Teruo, late of Tokyo, JAPAN deceased by Noriko

PATENT ASSIGNEE(S): Oku, Chikako Oku,  
Tomohito Oku, United States legal representatives  
Fujisawa Pharmaceutical Co., Ltd., Osaka, JAPAN  
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6495542	B1	20021217
	WO 9937637		19990729
APPLICATION INFO.:	US 2000-600857		20001016 (9)
	WO 1999-JP72		19990111

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1998-1500	19980127
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Coleman, Brenda	
LEGAL REPRESENTATIVE:	Oblon, Spivak, McClelland, Maier & Neustadt, P.C.	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	2693	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	A compound of formula (I): ##STR1##	

wherein A is an optionally substituted heterocyclic group, R is a lower alkoxy; Z is C.dbd.O or CH.sub.2; and B is benzazapinyl, which may be optionally substituted, or a salt thereof, that possesses vasopressin antagonistic activity and is useful as a vasopressin antagonist.

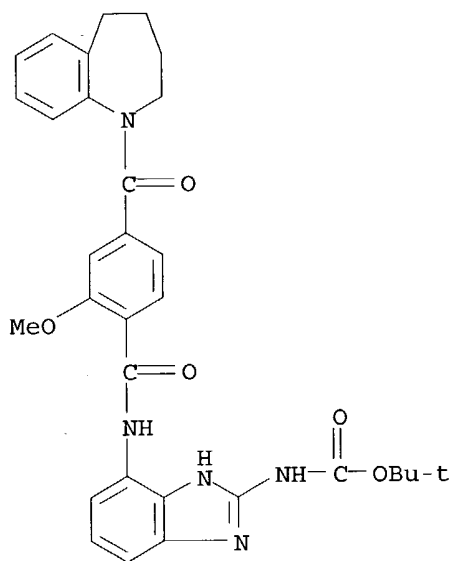
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 233263-10-0P

(preparation of heterocyclylbenzamide derivs. as vasopressin antagonists)

RN 233263-10-0 USPATFULL

CN Carbamic acid, [4-[[2-methoxy-4-[(2,3,4,5-tetrahydro-1H-1-benzazepin-1-yl)carbonyl]benzoyl]amino]-1H-benzimidazol-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



=> d 133 ibib abs hitstr 14-

YOU HAVE REQUESTED DATA FROM 4 ANSWERS - CONTINUE? Y/(N):Y

L33 ANSWER 14 OF 17 USPATFULL on STN

ACCESSION NUMBER: 2002:45585 USPATFULL

TITLE: Cycloimido-substituted benzofused heterocyclic herbicides

INVENTOR(S): Crawford, Scott D., Bordentown, NJ, United States  
Maravetz, Lester L., Westfield, NJ, United States  
Theodoridis, George, Princeton, NJ, United States  
Dugan, Benjamin, Glen Mills, PA, United States

PATENT ASSIGNEE(S): FMC Corporation, Philadelphia, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6352958	B1	20020305
APPLICATION INFO.:	US 2000-547609		20000412 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-28636, filed on 24 Feb 1998, now patented, Pat. No. US 6077812		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-39172P	19970226 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Kifle, Bruck	
ASSISTANT EXAMINER:	Rao, Deepak R.	
LEGAL REPRESENTATIVE:	FMCCorporation	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	1839	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel herbicidal compounds, compositions containing them, and methods

for their use in controlling weeds are disclosed. The novel herbicidal compounds are represented by formula I: ##STR1##

where J is a 1-substituted-6-trifluoromethyl-2,4-pyrimidinedione-3-yl, a 1-substituted-6-trifluoromethyl-1,3,5-triazine-2,4-dione-1-yl, a 3,4,5,6-tetrahydrophthalimid-1-yl, a 4-difluoromethyl-4,5-dihydro-3-methyl-1,2,4-triazol-5(1H)-on-1-yl, a 5,6,7,8-tetrahydro-1H,3H-[1,3,4]thiadiazolo[3,5-a]pyridazineimin-1-yl, or a 1,6,8-triazabicyclo[4.3.0]-nonane-7,9-dione-8-yl ring attached at the 7 position of a benzofuran, benzoxazole, indole, 2,3-dihydrobenzimidazole or benzimidazole, and X is selected from hydrogen, halogen, cyano, nitro, and amino. Preferred R groups are optionally substituted alkyl groups.

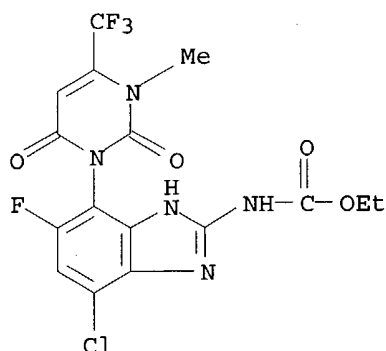
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 212754-54-6P

(preparation of cycloimido-substituted benzofused heterocyclic herbicides)

RN 212754-54-6 USPATFULL

CN Carbamic acid, [7-chloro-4-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-1H-benzimidazol-2-yl]-, ethyl ester (9CI) (CA INDEX NAME)



L33 ANSWER 15 OF 17 USPATFULL on STN

ACCESSION NUMBER: 2001:202663 USPATFULL

TITLE: Benzamide derivatives having a vasopressin antagonistic activity

INVENTOR(S): Setoi, Hiroyuki, Tsukuba, Japan  
Ohkawa, Takehiko, Yuki-gun, Japan  
Zenkoh, Tatsuya, Kitasouma-gun, Japan  
Sawada, Hitoshi, Tsukuba, Japan  
Sawada, Yuki, Ushiku, Japan  
Oku, Teruo, Takatsuki, Japan

PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Osaka, Japan  
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6316482	B1	20011113
APPLICATION INFO.:	US 2000-614132		20000711 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 308662		

NUMBER	DATE
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PRIORITY INFORMATION: AU 1996-3953 19961202  
DOCUMENT TYPE: Utility  
FILE SEGMENT: GRANTED  
PRIMARY EXAMINER: Higel, Floyd D.  
ASSISTANT EXAMINER: Sackey, Ebenezer  
LEGAL REPRESENTATIVE: Oblon, Spivak, McClelland, Maier & Neustadt, P.C.  
NUMBER OF CLAIMS: 16  
EXEMPLARY CLAIM: 1  
LINE COUNT: 8323

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to new benzamide derivatives having a vasopressin antagonistic activity, etc. and represented by general formula (I):  
##STR1##

wherein

R.sup.1 is aryl optionally substituted with lower alkoxy, etc.,

R.sup.2 is lower alkyl, etc.,

R.sup.3 is hydrogen, etc.,

A is NH, etc.,

E is ##STR2##

etc.,

X is --CH.dbd.CH--, --CH.dbd.N--, or S, and

Y is a condensed heterocyclic group, etc.,

and pharmaceutically acceptable salts thereof, to processes for preparation thereof and to a pharmaceutical composition comprising the same.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

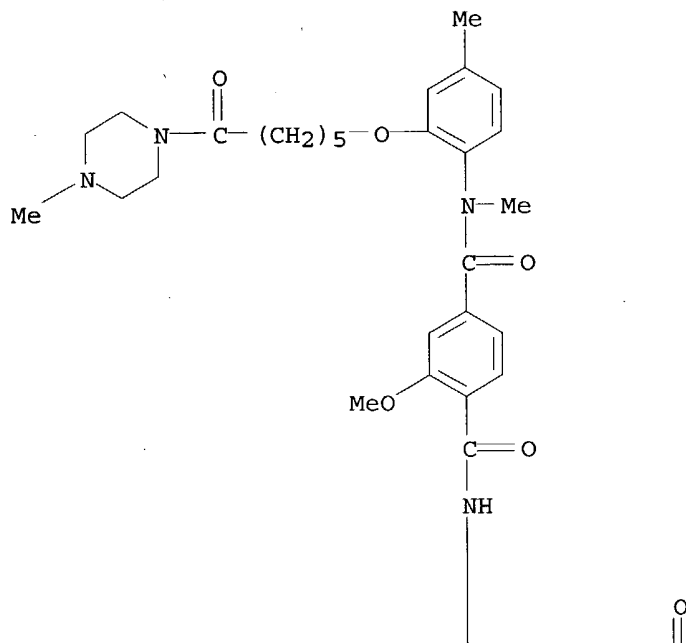
IT 208770-65-4P

(preparation of benzamide derivs. having a vasopressin antagonistic activity)

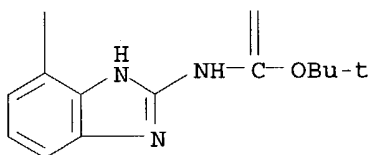
RN 208770-65-4 USPATFULL

CN Carbamic acid, [4-[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]benzoyl]amino]-1H-benzimidazol-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



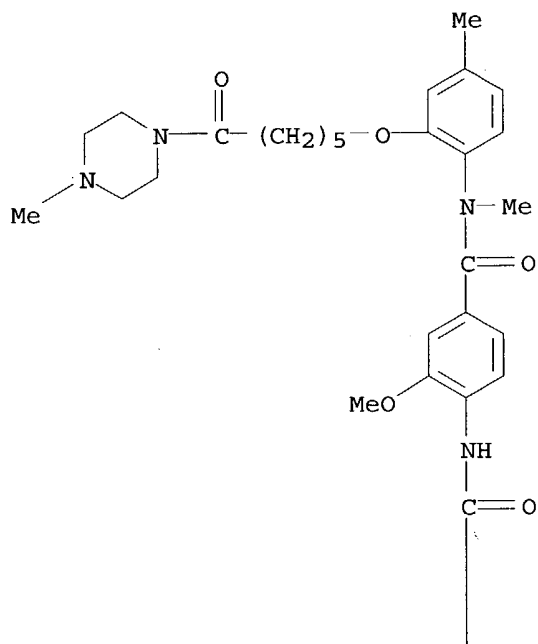
IT 208767-99-1P 208768-81-4P

(preparation of benzamide derivs. having a vasopressin antagonistic activity)

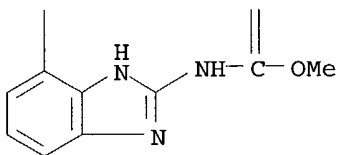
RN 208767-99-1 USPATFULL

CN Carbamic acid, [4-[[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]phenyl]amino]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



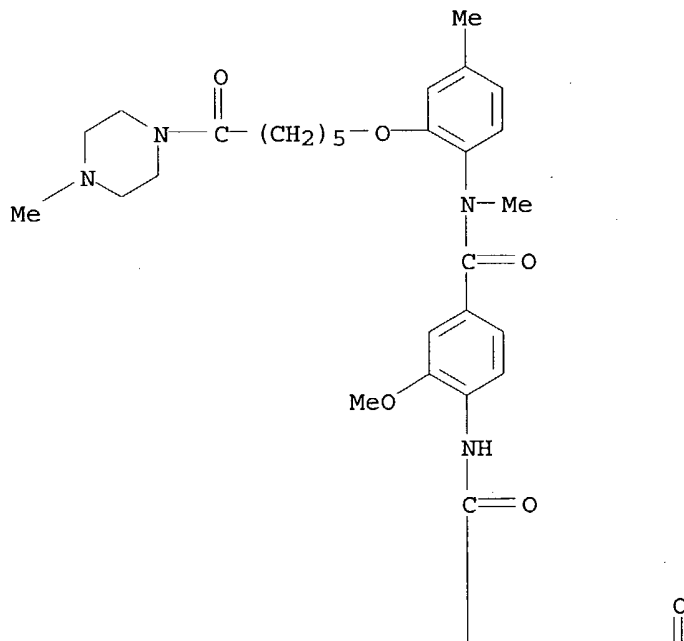
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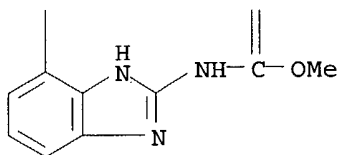
RN 208768-81-4 USPATFULL

CN Carbamic acid, [4-[[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]phenyl]amino]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



● 2 HCl

L33 ANSWER 16 OF 17 USPATFULL on STN  
 ACCESSION NUMBER: 2001:44251 USPATFULL  
 TITLE: Benzamide derivatives having a vasopressin antagonistic activity  
 INVENTOR(S): Setoi, Hiroyuki, Tsukuba, Japan  
 Ohkawa, Takehiko, Ibaraki, Japan  
 Zenkoh, Tatsuya, Ibaraki, Japan  
 Sawada, Hitoshi, Tsukuba, Japan  
 Sawada, Yuki, Ushiku, Japan  
 Oku, Teruo, Takatsuki, Japan  
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Osaka, Japan  
 (non-U.S. corporation)

NUMBER	KIND	DATE
-----		



PATENT INFORMATION: US 6207693 B1 20010327  
 WO 9824771 19980611  
 APPLICATION INFO.: US 1999-308662 19990602 (9)  
 WO 1997-JP4192 19971118  
 19990602 PCT 371 date  
 19990602 PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	AU 1996-3953	19961202
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Ramsuer, Robert W.	
ASSISTANT EXAMINER:	Sackey, Ebenezer	
LEGAL REPRESENTATIVE:	Oblon, Spivak, McClelland, Maier & Neustadt, P.C.	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
LINE COUNT:	8050	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to new benzamide derivatives having a vasopressin antagonistic activity, etc. and represented by general formula (I):  
 ##STR1##

wherein R.sup.1 is aryl optionally substituted with lower alkoxy, etc.,

R.sup.2 is lower alkyl, etc.,

R.sup.3 is hydrogen, etc.,

A is NH, etc.,

E is ##STR2##

etc.,

X is --CH.dbd.CH--, --CH.dbd.N--, or S, and

Y is a condensed heterocyclic group, etc.,

and pharmaceutically acceptable salts thereof, to processes for preparation thereof and to a pharmaceutical composition comprising the same.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

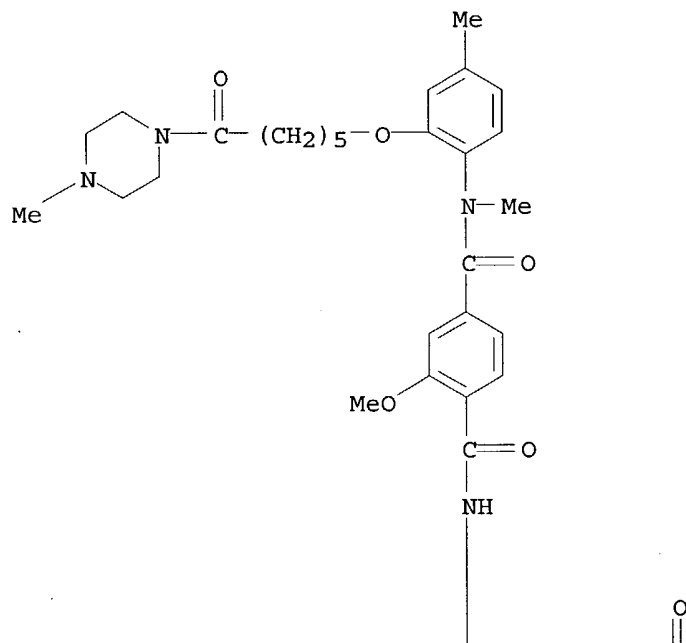
IT 208770-65-4P

(preparation of benzamide derivs. having a vasopressin antagonistic activity)

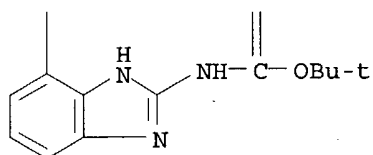
RN 208770-65-4 USPATFULL

CN Carbamic acid, [4-[[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]benzoyl]amino]-1H-benzimidazol-2-yl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



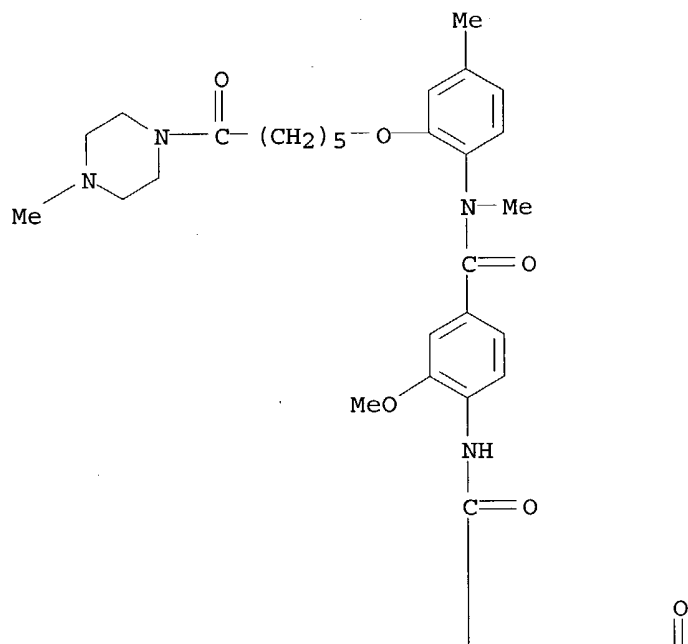
IT 208767-99-1P 208768-81-4P

(preparation of benzamide derivs. having a vasopressin antagonistic activity)

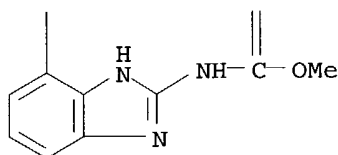
RN 208767-99-1 USPATFULL

CN Carbamic acid, [4-[[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]phenyl]amino]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



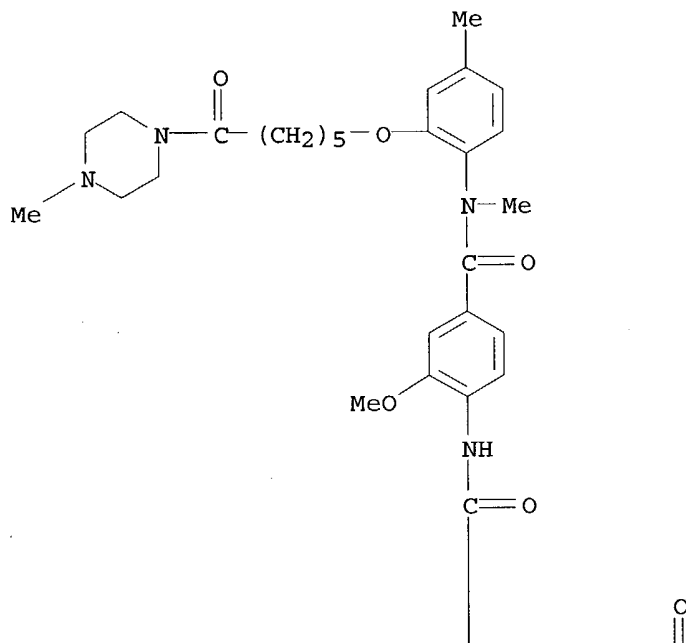
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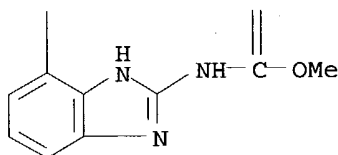
RN 208768-81-4 USPATFULL

CN Carbamic acid, [4-[[[2-methoxy-4-[[methyl[4-methyl-2-[[6-(4-methyl-1-piperazinyl)-6-oxohexyl]oxy]phenyl]amino]carbonyl]phenyl]amino]carbonyl]-1H-benzimidazol-2-yl]-, methyl ester, dihydrochloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A


$$\bullet 2 \text{ HCl}$$

L33 ANSWER 17 OF 17      USPATFULL on STN  
ACCESSION NUMBER:      2000:77328      USPATFULL  
TITLE:      Cycloimido-substituted benzofused heterocyclic  
                                 herbicides  
INVENTOR(S):      Crawford, Scott D., Bordentown, NJ, United States  
                                 Maravetz, Lester L., Westfield, NJ, United States  
                                 Theodoridis, George, Princeton, NJ, United States  
                                 Dugan, Benjamin, Glen Mills, PA, United States  
PATENT ASSIGNEE(S):      FMC Corporation, Philadelphia, PA, United States (U.S.  
                                 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6077812		20000620
APPLICATION INFO.:	US 1998-28636		19980224 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-39172P	19970226 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Raymond, Richard L.	
ASSISTANT EXAMINER:	Rao, Deepak R.	
LEGAL REPRESENTATIVE:	FMC Corporation	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3021	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel herbicidal compounds, compositions containing them, and methods for their use in controlling weeds are disclosed. The novel herbicidal compounds are represented by formula I: ##STR1## where J is a 1-substituted-6-trifluoromethyl-2,4-pyrimidinedione-3-yl, a 1-substituted-6-trifluoromethyl-1,3,5-triazine-2,4-dion-1-yl, a 3,4,5,6-tetrahydrophthalimid-1-yl, a 4-difluoromethyl-4,5-dihydro-3-methyl-1,2,4-triazol-5(1H)-on-1-yl, a 5,6,7,8-tetrahydro-1H,3H-[1,3,4]thiadiazolo[3,5-a]pyridazineimin-1-yl, or a 1,6,8-triazabicyclo[4.3.0]-nonane-7,9-dion-8-yl ring attached at the 7 position of a benzofuran, benzoxazole, indole, 2,3-dihydrobenzimidazole or benzimidazole, and X is selected from hydrogen, halogen, cyano, nitro, and amino. Preferred R groups are optionally substituted alkyl groups.

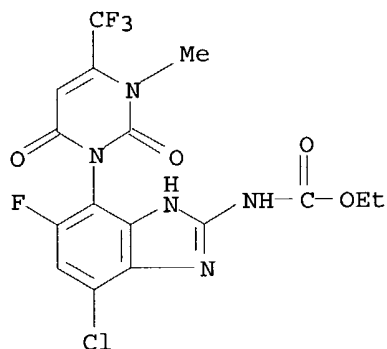
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 212754-54-6P

(preparation of cycloimido-substituted benzofused heterocyclic herbicides)

RN 212754-54-6 USPTAFULL

CN Carbamic acid, [7-chloro-4-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-1H-benzimidazol-2-yl]-, ethyl ester (9CI) (CA INDEX NAME)



=&gt; FIL STNGUIDE

=&gt;

=> fil lreg

=> fil beilstein

FILE 'BEILSTEIN' ENTERED AT 11:21:44 ON 02 JUL 2004  
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FILE RELOADED ON OCTOBER 20, 2002  
FILE LAST UPDATED ON JUNE 15, 2004

FILE COVERS 1771 TO 2003.  
\*\*\* FILE CONTAINS 8,997,153 SUBSTANCES \*\*\*

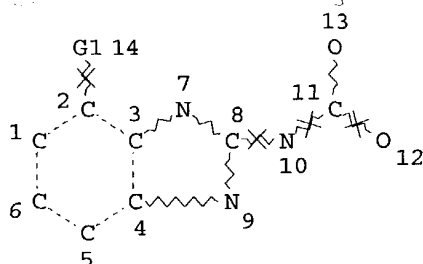
>>> PLEASE NOTE: Reaction data and substance data are stored in separate documents and can not be searched together in one query.  
Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a molecular formula or a structure search for example can be restricted to compounds with available reaction information by concatenation with PRE/FA, REA/FA or more general with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be selected from substance answer sets and searched in the next step as reaction partner BRNs - Reactant (RX.RBRN) or Product BRN (RX.PBRN). After a search for reaction details substance documents associated with reactants or products may be retrieved by searching RX.PBRNs or RX.RBRNs as BRNs. <<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

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=> d.que 126  
L20

STR



O-X-C-X-N  
15 @16 17

O-X-C-X-O  
@18 19 20

N-X-C-X-O  
@21 22 23

VAR G1=16/18/21

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NSPEC IS RC AT 22  
NSPEC IS RC AT 23  
CONNECT IS E1 RC AT 13  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

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NUMBER OF NODES IS 23

## STEREO ATTRIBUTES: NONE

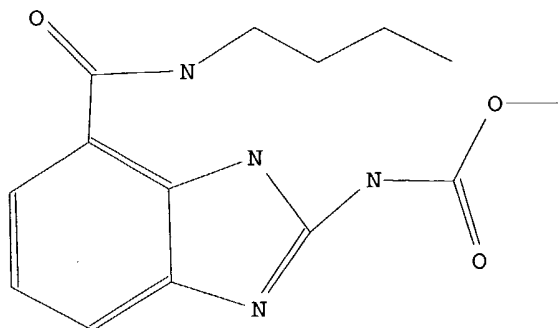
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Compds.  
w/ CAS  
RNs*

L26 ANSWER 1 OF 2 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 8157319  
Chemical Name (CN): benomyl  
Autonom Name (AUN): (7-butylcarbamoyl-1H-benzoimidazol-2-yl)-  
carbamic acid methyl ester  
Molec. Formula (MF): C14 H18 N4 O3  
Molecular Weight (MW): 290.32  
Lawson Number (LN): 29833, 2844, 1762, 289  
Compound Type (CTYPE): heterocyclic  
Constitution ID (CONSID): 6939870  
Tautomer ID (TAUTID): 7704593  
Entry Date (DED): 2000/02/26  
Update Date (DUPD): 2000/02/26



## Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	4
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
ECTOX	Ecotoxicology	1

=&gt; d ectox 126 1

L26 ANSWER 1 OF 2 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

## Ecotoxicology:

## ECTOX

Effect (.E): toxicity to soil dwelling organisms  
 Species or Test-System (.SP): Enchytraeus sp., enchytraeid worm  
 Concentration (.C): 0 - 64 mg/kg  
 Exposure Period (.EX): 24 day(s)  
 Method, Remarks (.MR): three soil moisture, 40, 55, 70 percent used, soil mixed with title compound, vehicle, water, incubated, constant light 400-800 lux, 17 deg C, worms extracted; measured parameters: survival, size of the parent worms, number and size juveniles produced

Results (.RE): caused significant mortality, survival of adults differed between soil moistures, adult survival increased with increasing soil moisture at high title compound conc., number of juveniles significant affected by title compound, effects were very abrupt

Reference(s):



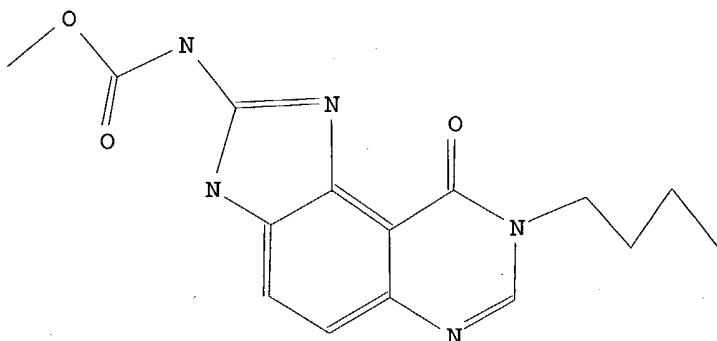
1. Puurtinen, H. M.; Martikainen, E. A. T., Arch. Environ. Contam. Toxicol.,  
CODEN: AECTCV, 33(1), <1997>, 34 - 41; BABS-6144369

=> d ide 126 2-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y

L26 ANSWER 2 OF 2 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN): 4556608  
Chemical Name (CN): (8-butyl-9-oxo-8,9-dihydro-3H-imidazo<4,5-f>quinazolin-2-yl)-carbamic acid methyl ester  
Autonom Name (AUN): (8-butyl-9-oxo-8,9-dihydro-3H-imidazo<4,5-f>quinazolin-2-yl)-carbamic acid methyl ester  
Molec. Formula (MF): C15 H17 N5 O3  
Molecular Weight (MW): 315.33  
Lawson Number (LN): 30729, 2844, 1762, 289  
Compound Type (CTYPE): heterocyclic  
Constitution ID (CONSID): 4096371  
Tautomer ID (TAUTID): 4366727  
Beilstein Citation (BSO): 6-26  
Entry Date (DED): 1991/12/02  
Update Date (DUPD): 1991/12/02



#### Field Availability:

Code	Name	Occurrence
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	4
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
BSO	Beilstein Citation	1
ED	Entry Date	1

UPD	Update Date	1
MP	Melting Point	1

This substance also occurs in Reaction Documents:

Code	Name	Occurrence
RX	Reaction Documents	1
RXPRO	Substance is Reaction Product	1

=> d rx l26 2-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y

L26 ANSWER 2 OF 2 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Reaction:

RX

Reaction ID (.ID):	2677155
Reactant BRN (.RBRN):	528927, 471187, 605437
Reactant (.RCT):	5,6-diamino-3-butyl-3H-quinazolin-4-one, 2-methyl-isothiourea, carbonochloridic acid methyl ester
Product BRN (.PBRN):	4556608
Product (.PRO):	(8-butyl-9-oxo-8,9-dihydro-3H-imidazo<4,5- f>quinazolin-2-yl)-carbamic acid methyl ester
No. of React. Details (.NVAR):	1

Reaction Details:

RX

Reaction RID (.RID):	2677155.1
Reaction Classification (.CL):	Preparation
Reagent (.RGT):	NaOH
Note(s) (.COM):	Yield given. Multistep reaction
Reference(s):	
1. Kumar, Shiv; Kansal, V. K.; Bhaduri, A. P., Indian J.Chem.Sect.B, CODEN: IJSBDB, 20(12), <1981>, 1068-1071; BABS-5577111	

=> FIL STNGUIDE

=>

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 12:16:31 ON 02 JUL 2004  
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FILE COVERS 1907 - 2 Jul 2004 VOL 141 ISS 2  
FILE LAST UPDATED: 1 Jul 2004 (20040701/ED)

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=> fil biosis

FILE 'BIOSIS' ENTERED AT 12:16:33 ON 02 JUL 2004  
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FILE COVERS 1969 TO DATE.  
CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 30 June 2004 (20040630/ED)

FILE RELOADED: 19 October 2003.

=> fil embase

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FILE COVERS 1974 TO 1 Jul 2004 (20040701/ED)

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=> fil medline

FILE 'MEDLINE' ENTERED AT 12:16:40 ON 02 JUL 2004

FILE LAST UPDATED: 1 JUL 2004 (20040701/UP). FILE COVERS 1951 TO DATE.

On February 29, 2004, the 2004 MeSH terms were loaded. See HELP RLOAD for details. OLD MEDLINE now back to 1951.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the

MeSH 2004 vocabulary. See <http://www.nlm.nih.gov/mesh/> and [http://www.nlm.nih.gov/pubs/techbull/nd03/nd03\\_mesh.html](http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html) for a description of changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> FIL STNGUIDE

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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Jun 25, 2004 (20040625/UP).

=> d que 145

L34 61 SEA FILE=HCAPLUS ABB=ON PLU=ON "CAMDEN J"/AU OR ("CAMDEN  
JAMES B"/AU OR "CAMDEN JAMES BERGER"/AU)  
L35 19 SEA FILE=HCAPLUS ABB=ON PLU=ON ("QUADA J C"/AU OR "QUADA  
JAMES"/AU OR "QUADA JAMES C"/AU OR "QUADA JAMES C JR"/AU OR  
"QUADA JAMES CLARENCE JR"/AU)  
L36 15 SEA FILE=HCAPLUS ABB=ON PLU=ON ("AGYIN J"/AU OR "AGYIN  
JOSEPH K"/AU OR "AGYIN JOSEPH KOFI"/AU)  
L37 81 SEA FILE=HCAPLUS ABB=ON PLU=ON (L34 OR L35 OR L36)  
L38 77 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND (AY<2001 OR PY<2001  
OR PRY<2001)  
L39 44 SEA FILE=HCAPLUS ABB=ON PLU=ON L38 AND (?CANCER? OR ?NEOPLASM  
? OR ?VIRAL? OR ?INFECTION?)  
L41 8974 SEA FILE=HCAPLUS ABB=ON PLU=ON (PROCTER OR ARIZONA OR CTRC  
OR UAF)/PA  
L42 44 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND L41  
L43 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND ?IMIDIAZOL?  
L44 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L42 AND ?CARBAM?  
L45 18 SEA FILE=HCAPLUS ABB=ON PLU=ON L43 OR L44

=> d que 156

L47 76 SEA FILE=BIOSIS ABB=ON PLU=ON ("CAMDEN J"/AU OR "CAMDEN J  
B"/AU) OR ("CAMDEN JAMES B"/AU OR "CAMDEN JAMES BERGER"/AU)  
L48 18 SEA FILE=BIOSIS ABB=ON PLU=ON ("QUADA J C"/AU OR "QUADA  
JAMES"/AU OR "QUADA JAMES C"/AU OR  
L49 13 SEA FILE=BIOSIS ABB=ON PLU=ON ("A  
JOSEPH K"/AU OR "AGYIN JOSEPH KOFI"  
L50 87 SEA FILE=BIOSIS ABB=ON PLU=ON (L4  
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OR REV?)/DT,SO,ST,CT,CW,IT,MT,BI  
L55 28 SEA FILE=BIOSIS ABB=ON PLU=ON (L52 OR L53 OR L54)  
L56 10 SEA FILE=BIOSIS ABB=ON PLU=ON L55 NOT ARTICLE/DT

*direct towards  
conference  
literature*

CW

=> d que 169

L59 38 SEA FILE=MEDLINE ABB=ON PLU=ON CAMDEN, J?/AU

L60 5 SEA FILE=MEDLINE ABB=ON PLU=ON QUADA, J?/AU  
L62 43 SEA FILE=MEDLINE ABB=ON PLU=ON (L59 OR L60)  
L63 35 SEA FILE=MEDLINE ABB=ON PLU=ON L62 AND PY<2001  
L69 8 SEA FILE=MEDLINE ABB=ON PLU=ON L63 AND (?CANCER? OR ?CARCIN?  
OR ?MALIG? OR ?TUMOR? OR ?TUMOUR? OR ?NEOPLAS? OR ?COMA OR  
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=> d que 175

L70 27 SEA FILE=EMBASE ABB=ON PLU=ON CAMDEN, J?/AU  
L71 7 SEA FILE=EMBASE ABB=ON PLU=ON QUADA, J?/AU  
L72 2 SEA FILE=EMBASE ABB=ON PLU=ON AGYIN, J?/AU  
L73 36 SEA FILE=EMBASE ABB=ON PLU=ON (L70 OR L71 OR L72)  
L74 28 SEA FILE=EMBASE ABB=ON PLU=ON L73 AND PY<2001  
L75 5 SEA FILE=EMBASE ABB=ON PLU=ON L74 AND (?CANCER? OR ?CARCIN?  
OR ?MALIG? OR ?TUMOR? OR ?TUMOUR? OR ?NEOPLAS? OR ?COMA OR  
?NOMA OR ?VIRAL? OR ?VIRUS? OR ?INFECT?)

=> dup rem 145 156 169 175

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PROCESSING COMPLETED FOR L56  
PROCESSING COMPLETED FOR L69  
PROCESSING COMPLETED FOR L75

L76 38 DUP REM L45 L56 L69 L75 (3 DUPLICATES REMOVED)  
ANSWERS '1-18' FROM FILE HCAPLUS  
ANSWERS '19-28' FROM FILE BIOSIS  
ANSWERS '29-36' FROM FILE MEDLINE  
ANSWERS '37-38' FROM FILE EMBASE

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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: Jun 25, 2004 (20040625/UP).

=> d ibib abs 146 1-

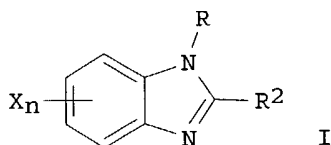
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YOU HAVE REQUESTED DATA FROM 12 ANSWERS - CONTINUE? Y/(N):y

L46 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:408524 HCAPLUS  
 DOCUMENT NUMBER: 137:689  
 TITLE: Benzimidazole derivatives for HIV treatment  
 INVENTOR(S): Camden, James Berger  
 PATENT ASSIGNEE(S): The Procter & Gamble Company, USA  
 SOURCE: PCT Int. Appl., 26 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002041891	A2	20020530	WO 2001-US45019	20011031 <--
WO 2002041891	A3	20030522		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002039395	A5	20020603	AU 2002-39395	20011031 <--
US 2003149088	A1	20030807	US 2002-280100	20021024 <--
PRIORITY APPLN. INFO.:			US 2000-703955	A 20001101 <--
			WO 2001-US45019	W 20011031
OTHER SOURCE(S):			MARPAT 137:689	
GI				

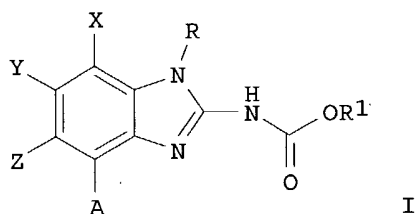


AB A pharmaceutical composition that can be used to treat HIV is disclosed. The composition comprises an effective amount of a benzimidazole I [X = H, halo, nitro, oxychloro alkyl of less than 7 C, alkoxy of less than 7 C; n = pos. integer of 4 or less; R = H, **alkylcarbamoyl** where alkyl has less than 7 C, C1-8 alkyl; R2 = NHCOOR1 (R1 = aliphatic hydrocarbon of less than 7 C)], or a pharmaceutically acceptable organic or inorg. addition salt thereof. The preferred compds. are methyl-(**butylcarbamoyl**)-2-benzimidazole **carbamate** and 2-methoxycarbonylaminobenzimidazole. The compds. described above are useful for treatment of HIV **infection** when used alone or in combination with other anti-viral agents.

L46 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2001:869026 HCAPLUS  
 DOCUMENT NUMBER: 136:610  
 TITLE: Benzimidazole **carbamate** compounds for **cancer** treatment  
 INVENTOR(S): Camden, James Berger

PATENT ASSIGNEE(S): The Procter & Gamble Company, USA  
 SOURCE: U.S. Pat. Appl. Publ., 13 pp., Cont.-in-part of U.S.  
 Ser. No. 791,986.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001047021	A1	20011129	US 2001-843562	20010426 <--
PRIORITY APPLN. INFO.:			US 2000-562709	B2 20000428 <--
			US 2000-791986	A2 20000428 <--
OTHER SOURCE(S):	MARPAT 136:610			
GI				



AB The invention is a method for treating **cancer**, including carcinomas and sarcomas, through the administration of a pharmaceutical composition containing a tetra-substituted benzimidazole **carbamate**. The tetra-substituted benzimidazole **carbamates** of the invention are I [X, Y, Z, A = Br, F, Cl, I, alkyl of less than 4 C, alkoxy of less than 4 C; R = H, (C1-4 alkyl)aminocarbonyl, C1-8 alkyl; R1 = aliphatic hydrocarbon of less than 7 C], or pharmaceutically acceptable salts or prodrugs thereof. Preferably R1 is an alkyl group of less than 3 C and X, Y, Z, and A are a halogen. Most preferred is 2-methoxycarbonylamino-4,5,6,7-tetrafluorobenzimidazole (preparation described). The tetra-substituted benzimidazole **carbamates**, and pharmaceutical compns. containing them, are claimed. X, Y, Z, and A are preferably electron-withdrawing groups.

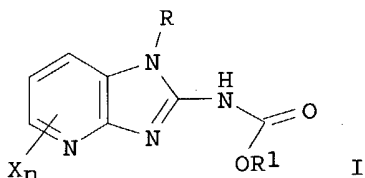
L46 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2001:868198 HCAPLUS  
 DOCUMENT NUMBER: 136:605  
 TITLE: Pyridinylimidazole **carbamates** for **cancer** treatment  
 INVENTOR(S): Camden, James Berger  
 PATENT ASSIGNEE(S): The Procter & Gamble Company, USA  
 SOURCE: PCT Int. Appl., 26 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2001089499      A2      20011129      WO 2001-US16690      20010523 <--
WO 2001089499      A3      20020718
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    FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
    KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
    MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM,
    TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD,
    RU, TJ, TM
RW:  GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
    DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
    BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 6384049          B1      20020507      US 2000-578281      20000525 <--
US 2002019415      A1      20020214      US 2001-923126      20010806 <--
PRIORITY APPLN. INFO.:      US 2000-578281      A      20000525 <--
OTHER SOURCE(S):      MARPAT 136:605
GI

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AB A method is provided for treating **cancer**, including carcinomas and sarcomas, through the administration of a pharmaceutical composition containing a pyridinylimidazole **carbamate**. The pyridinylimidazole **carbamate** is I (X = halo, hydroxyl, alkyl of less than 8 C atoms, alkoxy of less than 8C atoms; n = pos. integer less than 4; R = H, C1-8 alkyl), and pharmaceutically acceptable salts and prodrugs thereof.

L46 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2001:816644 HCAPLUS  
 DOCUMENT NUMBER: 135:352773  
 TITLE: Use of tetra-substituted benzimidazole  
**carbamates** for treating **cancer**  
 INVENTOR(S): Camden, James Berger  
 PATENT ASSIGNEE(S): The Procter & Gamble Company, USA  
 SOURCE: PCT Int. Appl., 27 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

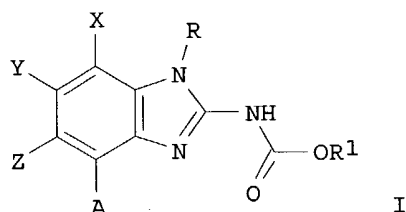
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001083457	A2	20011108	WO 2001-US13543	20010426 <--
WO 2001083457	A3	20020321		
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FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,  
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,  
 MZ, NO, NZ  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-562709 A 20000428 <--  
 US 2000-791986 A 20000428 <--

OTHER SOURCE(S): MARPAT 135:352773  
 GI



AB This invention is a method of treating **cancer**, including carcinomas and sarcomas through the administration of a pharmaceutical composition containing the title compound I [X, Y, Z, A = Br, F, Cl, I, alkyl, alkoxy; R = H, alkylaminocarbonyl, alkyl; R1 = alkyl]. Most preferred compound I is 2-methoxycarbonylamino-4,5,6,7-tetrafluorobenzimidazole which was used to treat SK-OV-3 tumor lines in nude mouse (data given). The tetra-substituted benzimidazole **carbamates** and pharmaceutical compns. containing them are claimed herein. X, Y, Z and A are preferably electron withdrawing groups.

L46 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:521912 HCAPLUS

DOCUMENT NUMBER: 135:102582

TITLE: Methods of treating **cancers** and **viral infections** with benzimidazoles

INVENTOR(S): Camden, James Berger

PATENT ASSIGNEE(S): The Procter & Gamble Co., USA

SOURCE: U.S., 17 pp., Cont.-in-part of U.S. 5,880,144.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

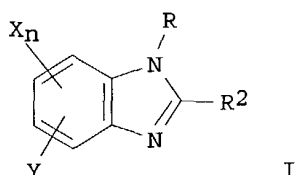
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ZA 9602879	A	19970317	ZA 1996-2879	19960411 <--
US 5767138	A	19980616	US 1996-771193	19961220 <--
US 5880144	A	19990309	US 1997-927550	19970906 <--
US 6362207	B1	20020326	US 2000-748651	20001222 <--
US 6479526	B1	20021112	US 2002-106429	20020326 <--
US 2002198247	A1	20021226		
US 2003187046	A1	20031002	US 2002-288264	20021106 <--
US 6653335	B2	20031125		

PRIORITY APPLN. INFO.: US 1995-420914 B3 19950412 <--  
 US 1996-771193 A3 19961220 <--

US 1997-927550 A2 19970906 <--  
US 1998-81384 B2 19980519 <--  
US 1998-81627 B2 19980519 <--  
US 1999-264942 A3 19990309 <--  
US 2000-748651 A1 20001222 <--  
US 2002-106429 A1 20020326

OTHER SOURCE(S): MARPAT 135:102582  
GI



AB A method and composition are disclosed for treating **cancer**, both carcinomas and sarcomas, and **viral infections**, in particular HIV, through the administration of a pharmaceutical composition containing a benzimidazole derivative. The benzimidazole derivs. are I [X = H, halo, alkyl of less than 7 carbon atoms, alkoxy of less than 7 carbon atoms; n = integer less than 4; Y = H, Cl, nitro, Me, Et, oxychloro; R = H, alkylaminocarbonyl (alkyl has 3-6 carbon atoms), C1-8 alkyl; R2 = 4-thiazolyl, NHCOOR1 (R1 = aliphatic hydrocarbon of less than 7 carbon atoms)], prodrugs, pharmaceutically acceptable salts, and mixts. thereof, and a pharmaceutically acceptable carrier.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 6 OF 12 HCAPLUS/ COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:312414 HCAPLUS

DOCUMENT NUMBER: 134:320842

TITLE: **Carbamic acid ester derivatives for treatment of viral infections**

INVENTOR(S): **Camden, James Berger**; Gardner, Joseph  
Herman; Stanton, David Thomas

PATENT ASSIGNEE(S): The **Procter & Gamble Company**, USA

SOURCE: U.S., 12 pp., Cont.-in-part of U.S. Ser. No. 281,893, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

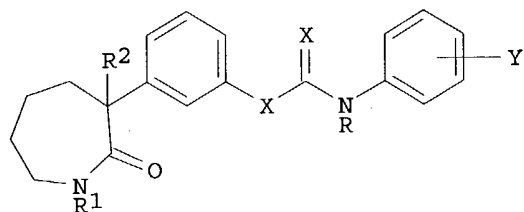
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6225307	B1	20010501	US 2000-538005	20000329 <--
PRIORITY APPLN. INFO.:			US 1999-281893	B2 19990331 <--
OTHER SOURCE(S):		MARPAT 134:320842		

GI



I

AB A pharmaceutical composition that inhibits or slows the growth of viruses in animals, particularly in mammals, is disclosed. The same composition is can be used to treat **viral infections**, particularly HIV. The composition comprises from about 10 mg to about 10000 mg of a **carbamic acid ester derivative I** (X = O, S; R, R1, R2 = H, Cl-4 alkyl; Y = H, Cl, F, Br, OH, oxychloro, sulfhydryl) or a pharmaceutical addition salt or prodrug thereof. The most preferred compound is (4-chlorophenyl)-**carbamic acid**, 3-(hexahydro-3-ethyl-1-methyl-2-oxo-1H-azepin-3-yl) 2 Ph ester.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:57228 HCAPLUS

DOCUMENT NUMBER: 134:95530

TITLE: Method of treatment for **cancer** or **viral infections** with a N-chlorophenylcarbamate, or N-chlorophenylthiocarbamate

INVENTOR(S): Camden, James Berger

PATENT ASSIGNEE(S): The Procter & Gamble Company, USA

SOURCE: U.S., 13 pp., Cont.-in-part of U.S. Ser. No. 364,021.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6177460	B1	20010123	US 1999-408664	19990929 <--
US 5629341	A	19970513	US 1995-420913	19950412 <--
ZA 9602878	A	19970317	ZA 1996-2878	19960411 <--
US 5932604	A	19990803	US 1996-680468	19960715 <--
US 5932609	A	19990803	US 1997-876705	19970616 <--
US 6251870	B1	20010626	US 1999-364021	19990730 <--
AU 730920	B2	20010322	AU 2000-22315	20000315 <--
US 6498188	B1	20021224	US 2000-645427	20000824 <--
US 2001002403	A1	20010531	US 2000-748652	20001222 <--
US 6686391	B2	20040203		

PRIORITY APPLN. INFO.:

US 1995-420913	A2	19950412 <--
US 1995-1888P	P	19950804 <--
US 1996-680468	A3	19960715 <--
US 1997-876705	A3	19970616 <--
US 1999-364021	A2	19990730 <--
US 1999-408664	A3	19990929 <--

OTHER SOURCE(S): MARPAT 134:95530

AB Methods for the treatment of **cancers** and **viral infections** in mammals are disclosed that include administration of

a N-chlorophenylcarbamate or N-chlorophenylthiocarbamate or salt thereof. Such compds. may be used in combination with a chemotherapeutic agent and/or a potentiator.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:706972 HCAPLUS

DOCUMENT NUMBER: 133:271712

TITLE: Viral treatment using carbamic acid esters

INVENTOR(S): Camden, James Berger; Gardner, Joseph Herman; Stanton, David Thomas

PATENT ASSIGNEE(S): The Procter & Gamble Company, USA

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

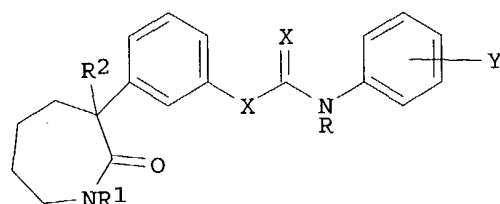
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000057868	A2	20001005	WO 2000-US8416	20000329 <--
WO 2000057868	A3	20010111		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1169041	A2	20020109	EP 2000-919865	20000329 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002540149	T2	20021126	JP 2000-607619	20000329 <--
AU 764265	B2	20030814	AU 2000-40486	20000329 <--
PRIORITY APPLN. INFO.: US 1999-281893 A 19990331 <--				
WO 2000-US8416 W 20000329 <--				

OTHER SOURCE(S): MARPAT 133:271712

GI



I

AB A pharmaceutical composition for treatment of viral infections, particularly HIV infections, comprises .apprx. 10-10,000 mg of a carbamic acid ester (I; X = O, S; R, R1, R2 = H, C1-4 alkyl; Y = H, Cl, F, Br, OH, oxychloro, sulphydryl) or pharmaceutical addition salt or prodrug thereof. The most preferred compound

is (4-chlorophenyl)-**carbamic** acid, 3-(hexahydro-3-ethyl-1-methyl-2-oxo-1H-azepin-3-yl)phenyl ester. Toxicity values were measured by XTT and activity of the compound in the tests was measured by reverse transcriptase anal. through 222 days against different HIV-1 cell lines.

L46 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:487107 HCAPLUS  
DOCUMENT NUMBER: 131:120896  
TITLE: Pharmaceutical compositions for the treatment of  
**viral infections**  
INVENTOR(S): **Camden, James Berger**  
PATENT ASSIGNEE(S): The **Procter** & Gamble Company, USA  
SOURCE: U.S., 6 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5932604 ✓	A	19990803	US 1996-680468	19960715 <--
US 5932609 ✓	A	19990803	US 1997-876705	19970616 <--
US 6251870 ✓	B1	20010626	US 1999-364021	19990730 <--
US 6177460 ✓	B1	20010123	US 1999-408664	19990929 <--
US 6498188 ✓	B1	20021224	US 2000-645427	20000824 <--
US 2001002403 ✓	A1	20010531	US 2000-748652	20001222 <--
US 6686391 ✓	B2	20040203		
US 2001041678 ✓	A1	20011115	US 2001-888299	20010621 <--
PRIORITY APPLN. INFO.:			US 1995-420913	A2 19950412 <--
			US 1995-1888P	P 19950804 <--
			US 1996-680468	A3 19960715 <--
			US 1997-876705	A3 19970616 <--
			US 1999-364021	A2 19990730 <--
			US 1999-408664	A3 19990929 <--

OTHER SOURCE(S): MARPAT 131:120896

AB This invention is a pharmaceutical composition that inhibits the growth of **cancers** and tumors in mammals, particularly in human and warm blooded animals. The composition contains N-**chlorophenylcarbammates** and N-**chlorophenylthiocarbammates** along with a chemotherapeutic agent and optionally a potentiator. A composition for treating **viral infections** in animals or humans comprising a safe and effective amount of N-**chlorophenylcarbammates** and the N-**chlorophenylthiocarbammates** and a potentiator is also disclosed.

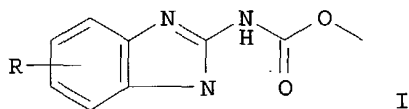
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 10 OF 12 HCAPLUS } COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:764283 HCAPLUS  
DOCUMENT NUMBER: 130:20597  
TITLE: Benzimidazole-2-**carbammates** for the treatment  
of **viral infections** and  
**cancer**  
INVENTOR(S): **Camden, James Berger**  
PATENT ASSIGNEE(S): The **Procter** & Gamble Company, USA  
SOURCE: PCT Int. Appl., 24 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9851304	A1	19981119	WO 1997-US21565	19971126 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 6506783 ✓	B1	20030114	US 1997-857811	19970516 <--
AU 9874027	A1	19981208	AU 1998-74027	19971126 <--
AU 728690	B2	20010118		
EP 956017	A1	19991117	EP 1997-949600	19971126 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
BR 9714634	A	20000523	BR 1997-14634	19971126 <--
CN 1254282	A	20000524	CN 1997-182190	19971126 <--
NZ 335159	A	20010928	NZ 1997-335159	19971126 <--
JP 2001527523	T2	20011225	JP 1998-521930	19971126 <--
US 6077862 ✓	A	20000620	US 1999-259969	19990301 <--
AU 763272	B2	20030717	AU 2001-37094	20010418 <--
PRIORITY APPLN. INFO.:			US 1997-857811	A 19970516 <--
			AU 1998-74027	A3 19971126 <--
			WO 1997-US21565	W 19971126 <--
OTHER SOURCE(S):			MARPAT 130:20597	
GI				



AB A pharmaceutical composition that is effective in the treatment of HIV and other **viral infections** and inhibits growth of **cancers** and tumors in mammals comprises a benzimidazole derivative (I; R = H, CO<sub>2</sub>H, OH, NH<sub>2</sub>, CO<sub>2</sub>R<sub>1</sub>; R<sub>1</sub> = alkoxy, haloalkyl, alkenyl, cycloalkyl), the pharmaceutically acceptable salts thereof, or mixts. thereof. I (R = H) inhibits the growth of B16 murine melanoma and HT29 human colon carcinoma cells with IC<sub>50</sub> of 4.925 and 3.297 μM, resp.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:718343 HCAPLUS

DOCUMENT NUMBER: 126:1176

TITLE: A pharmaceutical composition containing n-chlorophenylcarbamates and n-chlorophenylthiocarbamates for inhibiting the growth of viruses and **cancers**

INVENTOR(S): Camden, James Berger

PATENT ASSIGNEE(S): Procter and Gamble Company, USA

SOURCE: PCT Int. Appl., 18 pp.

CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9632104	A1	19961017	WO 1996-US4956	19960411 <--
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
US 5629341	A	19970513	US 1995-420913	19950412 <--
CA 2217953	AA	19961017	CA 1996-2217953	19960411 <--
CA 2217953	C	20011204		
AU 9653898	A1	19961030	AU 1996-53898	19960411 <--
AU 714056	B2	19991216		
ZA 9602878	A	19970317	ZA 1996-2878	19960411 <--
EP 820281	A1	19980128	EP 1996-910804	19960411 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
CN 1181701	A	19980513	CN 1996-193249	19960411 <--
BR 9604973	A	19980609	BR 1996-4973	19960411 <--
RU 2170577	C2	20010720	RU 1997-118418	19960411 <--
NZ 305785	A	20011026	NZ 1996-305785	19960411 <--
NO 9704696	A	19971212	NO 1997-4696	19971010 <--
AU 730920	B2	20010322	AU 2000-22315	20000315 <--
PRIORITY APPLN. INFO.:			US 1995-420913	A 19950412 <--
			US 1995-1888P	P 19950804 <--
			WO 1996-US4956	W 19960411 <--

OTHER SOURCE(S): MARPAT 126:1176

AB A pharmaceutical composition that inhibits the growth of **cancers** and tumors in mammals, particularly in human and warm-blooded animals is disclosed. The compns. is also effective against viruses. The composition contains N-**chlorophenylcarbamates** (I) and N-**chlorophenylthiocarbamates** (II) which are systemic herbicides. The composition can also contain I and II along with a chemotherapeutic agent and optionally a potentiator. The EC50 of chloroprofam on colon tumor cell was 13.3 as compared to 0.003 ppm for adriamycin. Various pharmaceutical dosage forms are claimed.

L46 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:716308 HCAPLUS

DOCUMENT NUMBER: 125:317335

TITLE: A pharmaceutical composition containing n-**chlorophenylcarbamates**, n-**chlorophenylthiocarbamates** and n-phosphonoglycine derivatives for inhibiting the growth of **cancers** and viruses in mammals

INVENTOR(S): Camden, James Berger

PATENT ASSIGNEE(S): Procter and Gamble Company, USA

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9632103	A1	19961017	WO 1996-US4953	19960411 <--
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
US 5656615	A	19970812	US 1995-420935	19950412 <--
ZA 9602881	A	19961015	ZA 1996-2881	19960411 <--
CA 2217955	AA	19961017	CA 1996-2217955	19960411 <--
AU 9654498	A1	19961030	AU 1996-54498	19960411 <--
AU 714058	B2	19991216		
EP 820282	A1	19980128	EP 1996-911695	19960411 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
CN 1181009	A	19980506	CN 1996-193248	19960411 <--
BR 9604950	A	19980609	BR 1996-4950	19960411 <--
JP 11503457	T2	19990326	JP 1996-531150	19960411 <--
IL 117876	A1	20000813	IL 1996-117876	19960411 <--
CZ 288063	B6	20010411	CZ 1997-3237	19960411 <--
NZ 306270	A	20010629	NZ 1996-306270	19960411 <--
RU 2170578	C2	20010720	RU 1997-118433	19960411 <--
SK 282228	B6	20011203	SK 1997-1385	19960411 <--
TW 457089	B	20011001	TW 1996-85105604	19960513 <--
NO 9704693	A	19971208	NO 1997-4693	19971010 <--
CZ 288382	B6	20010613	CZ 2000-3649	20001004 <--
PRIORITY APPLN. INFO.:			US 1995-420935	A 19950412 <--
			WO 1996-US4953	W 19960411 <--
OTHER SOURCE(S):		MARPAT 125:317335		
AB Pharmaceutical compns. that inhibit the growth of <b>cancers</b> and tumors in mammals, particularly in human and warm blooded animals is disclosed. The compns. contain a 10:1 to 1:10 mixture of (1) N- <b>chlorophenylcarbamates</b> or N- <b>chlorophenylthiocarbamates</b> and (2) N-phosphonoglycine derivs. which are systemic herbicides. These compns. can also be used to treat <b>viral infections</b> . The EC50 of a 1:1 mixture of chloroprofam and glyphosate on colon tumor cell was 1.96 as compared to 0.003 ppm for adriamycin. Various pharmaceutical dosage forms are claimed.				

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, BIOSIS, MEDLINE, EMBASE' - CONTINUE?  
(Y)/N:y

YOU HAVE REQUESTED DATA FROM 20 ANSWERS - CONTINUE? Y/(N):y

L76 ANSWER 19 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
 ACCESSION NUMBER: 2001:89629 BIOSIS  
 DOCUMENT NUMBER: PREV200100089629  
 TITLE: Virus and cancer treatments.  
 AUTHOR(S): **Camden, James Berger** [Inventor]  
 CORPORATE SOURCE: ASSIGNEE: The Procter and Gamble Company  
 PATENT INFORMATION: US 6077862, June 20, 2000  
 SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (June 20, 2000) Vol. 1235, No. 3. e-file.  
 CODEN: OGUPE7. ISSN: 0098-1133.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English



ENTRY DATE: Entered STN: 14 Feb 2001

Last Updated on STN: 12 Feb 2002

AB A pharmaceutical composition that inhibits the growth of tumors and cancers in mammals and can be used to treat viral infections that comprises a fungicide is disclosed. The particular fungicide used is a benzimidazole derivative having the formula: ##STR1## wherein R is selected from the group consisting of H, carboxyl (--CO<sub>2</sub> H), hydroxyl, amino or esters (--CO<sub>2</sub> R') wherein R' is selected from the group consisting of alkoxy, haloalkyl, alkenyl, and cycloalkyl wherein the alkyl groups have from 1-8 carbons or CH<sub>3</sub> CH<sub>2</sub> (OCH<sub>2</sub> CH<sub>2</sub>)<sub>n</sub> --or CH<sub>3</sub> CH<sub>2</sub> CH<sub>2</sub> (OCH<sub>2</sub> CH<sub>2</sub> CH<sub>2</sub>)<sub>n</sub> --or (CH<sub>3</sub>)<sub>2</sub> CH--(OCH(CH<sub>3</sub>)CH<sub>2</sub>)<sub>n</sub> -- wherein n is from 1-3, the pharmaceutically acceptable salts thereof, or mixtures thereof.

L76 ANSWER 20 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2000:214259 BIOSIS

DOCUMENT NUMBER: PREV200000214259

TITLE: Antitumor activity of FB-642 against several human tumor xenograft models.

AUTHOR(S): Hao, D. [Reprint author]; Gonzalez, C. M.; Davis, J.; Marty, J.; Gonzales, P.; Jundt, C.; Stringer, S. D.; Weitman, S. D.; Camden, J. B.

CORPORATE SOURCE: Institute for Drug Development, San Antonio, TX, USA

SOURCE: **Proceedings of the American Association for Cancer Research Annual Meeting**, (March, 2000) No. 41, pp. 104. print.  
Meeting Info.: **91st Annual Meeting of the American Association for Cancer Research**. San Francisco, California, USA. April 01-05, 2000.  
ISSN: 0197-016X.

DOCUMENT TYPE: **Conference; (Meeting)**  
**Conference; Abstract; (Meeting Abstract)**

LANGUAGE: English

ENTRY DATE: Entered STN: 24 May 2000

Last Updated on STN: 5 Jan 2002

L76 ANSWER 21 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2000:202183 BIOSIS

DOCUMENT NUMBER: PREV200000202183

TITLE: Dual flipping and novel motifs of DNA **methyltransferase**.

AUTHOR(S): Quada, James C. [Reprint author]; Izbicka, Elzbieta; Rashidi, Hooman H.

CORPORATE SOURCE: CTRC-Institute for Drug Development, San Antonio, TX, USA

SOURCE: **Proceedings of the American Association for Cancer Research Annual Meeting**, (March, 2000) No. 41, pp. 79. print.  
Meeting Info.: **91st Annual Meeting of the American Association for Cancer Research**. San Francisco, California, USA. April 01-05, 2000.  
ISSN: 0197-016X.

DOCUMENT TYPE: **Conference; (Meeting)**  
**Conference; Abstract; (Meeting Abstract)**

LANGUAGE: English

ENTRY DATE: Entered STN: 24 May 2000

Last Updated on STN: 5 Jan 2002

L76 ANSWER 22 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1999:166156 BIOSIS

DOCUMENT NUMBER: PREV199900166156

TITLE: Pharmaceutical composition for inhibiting the growth of

viruses and cancers comprising thiabendazole.

AUTHOR(S): **Camden, J. B.** [Inventor]  
CORPORATE SOURCE: West Chester, Ohio, USA  
ASSIGNEE: THE PROCTER and GAMBLE COMPANY  
PATENT INFORMATION: US 5880144 March 9, 1999  
SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (March 9, 1999) Vol. 1220, No. 2, pp. 1567.  
print.  
CODEN: OGUPE7. ISSN: 0098-1133.  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
ENTRY DATE: Entered STN: 19 Apr 1999  
Last Updated on STN: 19 Apr 1999

L76 ANSWER 23 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
ACCESSION NUMBER: 1999:246466 BIOSIS  
DOCUMENT NUMBER: PREV199900246466  
TITLE: Pharmaceutical compositions for inhibiting the growth of  
cancers.  
AUTHOR(S): **Camden, J. B.** [Inventor]  
CORPORATE SOURCE: West Chester, Ohio, USA  
ASSIGNEE: THE PROCTER and GAMBLE COMPANY  
PATENT INFORMATION: US 5872142 Feb. 16, 1999  
SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (Feb. 16, 1999) Vol. 1219, No. 3, pp. 2530.  
print.  
CODEN: OGUPE7. ISSN: 0098-1133.  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
ENTRY DATE: Entered STN: 2 Jul 1999  
Last Updated on STN: 2 Jul 1999

L76 ANSWER 24 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
ACCESSION NUMBER: 1999:72884 BIOSIS  
DOCUMENT NUMBER: PREV199900072884  
TITLE: Pharmaceutical compositions for inhibiting the growth of  
cancers.  
AUTHOR(S): **Camden, J. B.** [Inventor]  
CORPORATE SOURCE: West Chester, Ohio, USA  
ASSIGNEE: THE PROCTER and GAMBLE COMPANY  
PATENT INFORMATION: US 5854231 Dec. 29, 1998  
SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (Dec. 29, 1998) Vol. 1217, No. 5, pp. 4198.  
print.  
CODEN: OGUPE7. ISSN: 0098-1133.  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
ENTRY DATE: Entered STN: 1 Mar 1999  
Last Updated on STN: 1 Mar 1999

L76 ANSWER 25 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
ACCESSION NUMBER: 1999:71124 BIOSIS  
DOCUMENT NUMBER: PREV199900071124  
TITLE: Pharmaceutical composition for inhibiting the growth of  
cancers.  
AUTHOR(S): **Camden, J. B.** [Inventor]  
CORPORATE SOURCE: West Chester, Ohio, USA  
ASSIGNEE: THE PROCTER and GAMBLE COMPANY  
PATENT INFORMATION: US 5840742 Nov. 24, 1998  
SOURCE: Official Gazette of the United States Patent and Trademark

Office Patents, (Nov. 24, 1998) Vol. 121, No. 4, pp. 4025.  
print.

CODEN: OGUPE7. ISSN: 0098-1133.

DOCUMENT TYPE:

Patent

LANGUAGE:

English

ENTRY DATE:

Entered STN: 1 Mar 1999

Last Updated on STN: 1 Mar 1999

L76 ANSWER 26 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2002:110724 BIOSIS

DOCUMENT NUMBER: PREV200200110724

TITLE: Pharmaceutical composition for inhibiting the growth of  
cancers.

AUTHOR(S): Camden, J. B. [Inventor]

CORPORATE SOURCE: West Chester, Ohio, USA

ASSIGNEE: THE PROCTER and GAMBLE COMPANY

PATENT INFORMATION: US 5770616 June 23, 1998

SOURCE: Official Gazette of the United States Patent and Trademark  
Office Patents, (June 23, 1998) Vol. 1211, No. 4, pp. 4096.  
print.

CODEN: OGUPE7. ISSN: 0098-1133.

DOCUMENT TYPE:

Patent

LANGUAGE:

English

ENTRY DATE:

Entered STN: 24 Jan 2002

Last Updated on STN: 26 Feb 2002

L76 ANSWER 27 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1996:353947 BIOSIS

DOCUMENT NUMBER: PREV199699076303

TITLE: DNA strand scission by photoactivated bleomycin analogues.

AUTHOR(S): Hecht, S. M. [Reprint author]; Quada, J. C.;

Zuber, G. F.

CORPORATE SOURCE: Dep. Chem., Univ. Virginia, Charlottesville, VA 22901, USA

SOURCE: Photochemistry and Photobiology, (1996) No. SPEC.  
ISSUE, pp. 66S-67S.

Meeting Info.: 24th Annual Meeting of the  
Society for Photobiology. Atlanta, Georgia  
15-20, 1996.

CODEN: PHCBAP. ISSN: 0031-8655.

DOCUMENT TYPE:

Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE:

English

ENTRY DATE:

Entered STN: 5 Aug 1996

Last Updated on STN: 5 Aug 1996

L76 ANSWER 28 OF 38 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1992:249881 BIOSIS

DOCUMENT NUMBER: PREV199242120181; BR42:120181

TITLE: THE REGULATION CALCIUM ACTIVATED POTASSIUM CHANNELS BY ATP  
RECEPTORS AND OSMOTIC CHALLENGE IN HSG CELLS.

AUTHOR(S): KIM H D [Reprint author]; SULLIVAN, M. BURNETT J;

CAMDEN J; TURNER J T

CORPORATE SOURCE: DEP PHARMACOL, UNIV MO, SCH MED,  
FASEB Journal, (1992) Vol. 6, No

SOURCE:

Meeting Info.: 1992 MEETING OF THE  
AMERICAN SOCIETIES FOR EXPERIMENTAL  
BIOLOGY, ANAHEIM, CALIFORNIA, USA, APR  
SOC EXP BIOL) J.

CODEN: FAJOEC. ISSN: 0892-6638.

DOCUMENT TYPE:

Conference; (Meeting)

FILE SEGMENT: BR  
LANGUAGE: ENGLISH  
ENTRY DATE: Entered STN: 14 May 1992  
Last Updated on STN: 15 May 1992

L76 ANSWER 29 OF 38 MEDLINE on STN DUPLICATE 1  
ACCESSION NUMBER: 1999212223 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 10194316  
TITLE: Regulation of catalytic activity and processivity of human telomerase.  
AUTHOR: Sun D; Lopez-Guajardo C C; Quada J; Hurley L H; Von Hoff D D  
CORPORATE SOURCE: Institute for Drug Development, Cancer Therapy & Research Center, San Antonio, Texas 78245-3217, USA.. dsun@saci.org  
CONTRACT NUMBER: U19 CA67760-04 (NCI)  
SOURCE: Biochemistry, (1999 Mar 30) 38 (13) 4037-44.  
Journal code: 0370623. ISSN: 0006-2960.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199904  
ENTRY DATE: Entered STN: 19990504  
Last Updated on STN: 19990504  
Entered Medline: 19990421

AB The ends of eukaryotic chromosomes are specialized sequences, called telomeres comprising tandem repeats of simple DNA sequences. Those sequences are essential for preventing aberrant recombination and protecting genomic DNA against exonucleolytic DNA degradation. Telomeres are maintained at a stable length by telomerase, an RNA-dependent DNA polymerase. Recently, human telomerase has been recognized as a unique diagnostic marker for human tumors and is potentially a highly selective target for antitumor drugs. In this study, we have examined the major factors affecting the catalytic activity and processivity of human telomerase. Specifically, both the catalytic activity and processivity of human telomerase were modulated by temperature, substrate (dNTP and primer) concentration, and the concentration of K+. The catalytic activity of telomerase increased as temperature (up to 37 degrees C), concentrations of dGTP, primer, and K+ were increased. However, the processivity of human telomerase decreased as temperature, primer concentration, and K+ were increased. Our results support the current model for human telomerase reaction and strengthen the hypothesis that a G-quadruplex structure of telomere DNA plays an important role in the regulation of the telomerase reaction.

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L76 ANSWER 31 OF 38 MEDLINE on STN

L76 ANSWER 32 OF 38 MEDLINE on STN

L76 ANSWER 33 OF 38 MEDLINE on STN

L76 ANSWER 34 OF 38 MEDLINE on STN  
ACCESSION NUMBER: 96086506 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 7582943

TITLE: Design, synthesis and sequence selective DNA cleavage of functional models of bleomycin--II. 1,2-trans-disubstituted

*Removed hits  
for "J.M. Berger"*

cyclopropane units as novel linkers.

AUTHOR: Huang L; Quada J C Jr; Lown J W  
CORPORATE SOURCE: Department of Chemistry, University of Alberta, Edmonton, Canada.  
SOURCE: Bioorganic & medicinal chemistry, (1995 Jun) 3 (6) 647-57.  
Journal code: 9413298. ISSN: 0968-0896.

PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199512  
ENTRY DATE: Entered STN: 19960124  
Last Updated on STN: 19970203  
Entered Medline: 19951213

AB The design and syntheses of functional models for bleomycin in which AMPHIS, a simplified model of the metal-chelating subunit of bleomycin is connected to distamycin analogs with a series of linkers, are described. Kinetic studies and DNA cleavage assay show that 1,2-trans-disubstituted cyclopropane units are the best linkers within this series. Study of selective DNA cleavage on high resolution polyacrylamide sequencing gels indicates that the linker modified hybrids generally cleave selectively at the 5' end of poly T sites and at the 3' end of poly A sites. Cleavage activity is enhanced for most of the compounds related to those with shorter linkers, previously reported, (Huang, L.; Quada, Jr J. C.; Lown, J. W. Bioconjugate Chemical 1995, 6, 21, Reference 1) probably as a result of the linker allowing the active complex to approach the target deoxyribose more closely and efficiently. Certain of the compounds, ones containing a (S)-methyl in the linker and the (S,S)-cyclopropyl linker, exhibit unique cleavage sites, indicating that these linkers allow the hybrids to locate novel, individual DNA binding sites.

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L76 ANSWER 36 OF 38 MEDLINE on STN

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ACCESSION NUMBER: 95192171 EMBASE  
DOCUMENT NUMBER: 1995192171  
TITLE: Functional models of the **antitumor** antibiotic bleomycin.  
AUTHOR: Huang L.; Quada Jr. J.C.; Lown J.W.  
CORPORATE SOURCE: Department of Chemistry, University of Alberta, Edmonton, Alta. T6G 2G2, Canada  
SOURCE: Current Medicinal Chemistry, (1995) 2/1 (543-560).  
ISSN: 0929-8673 CODEN: CMCHE7  
COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; General Review  
FILE SEGMENT: 016 Cancer  
030 Pharmacology  
037 Drug Literature Index  
LANGUAGE: English  
SUMMARY LANGUAGE: English

AB The naturally occurring glycopeptide bleomycin exhibits both **antitumor** and antibiotic properties. It has an established place

in the clinical treatment of certain human malignancies including squamous cell carcinoma and testicular tumors. Structurally it comprises four distinct domains: i) an anchoring group containing a bithiazole moiety that binds to double helical DNA; ii) a chiral peptidic spacer that positions the individual portions of the molecule on the receptor; iii) a sugar moiety bearing a carbamoyl group; and iv) an active moiety bearing ligands capable of coordinating a metal ion, such as iron and which is involved in the redox chemistry ultimately responsible for site specific DNA damage. The observation of serious side effects, principally pulmonary toxicity, has limited the clinical applications of bleomycin and provides the motivation to develop less toxic and more selective versions of the drug. Once the mechanism of action of bleomycin via oxygen mediated and site specific DNA cleavage was elucidated the possibility arose of designing functional models. This article will review progress from the earliest metal-complexing models to the most recent conjugates that fully mimic the action of the natural product and, moreover, are capable of being directed to alternative target sequences.

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